CORPS OF ENGINEERS

US ARMY

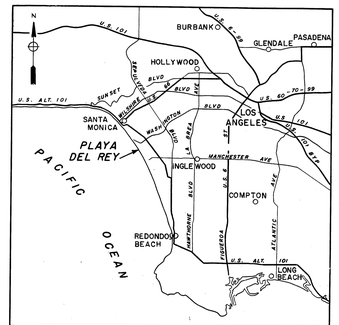
PACIFIC OCEAN

SANTA MONICA BAY

LEGEND

- ✱ NAVIGATION LIGHT
- (15) PROJECT DEPTH
- ---- HARBOR BOUNDARY
- F-1 DISPOSAL AREA
- D-1 DREDGE AREA
- ——— DISPOSAL AREA BOUNDARY

NOTE:
GRID BASED ON CALIFORNIA COORDINATE SYSTEM ZONE 7.
DATUM IS MEAN LOWER LOW WATER.
BULKHEAD LINES ARE ALSO LIMIT OF DISPOSAL IN MOLES
SEE SHEET 2 FOR GENERAL NOTES.
DREDGE AREAS, D-1 THROUGH D-5; BASINS, A THROUGH H; FILL AREAS, F-1 THROUGH F-14.



VICINITY MAP

SCALE 5 0 5 10 MILES

F-6
CITY OF LOS ANGELES
BASIN E (10)
MOLE 4
BASIN D (10)
MOLE 3
BASIN C (10)
MOLE 2
BASIN B (10)
MOLE 1
BASIN A (10)
F-8 +18 (1st lift) complete (2nd lift)
F-5
F-4
Los Angeles Lake
Existing
F-3
F-1 (+10 (1st LIFT) (COMPLETE (2nd LIFT)
End Revetment West Side
F-6
BASIN F (10)
MOLE 5
BASIN G (10)
MOLE 6
BASIN H (10)
F-2
PERIMETER ROAD
F-2 F-6
D-1 CHANNEL
D-2
D-3
D-4
D-5
Limit of project depth
Bulkhead Line
1000' MAIN CHANNEL
F-13
F-12
F-14
F-11
F-9
F-10
F-7 Beach Disposal Area (see sheet 11)
F-14
F-2 F-14
470'± of 2' Water Line to be removed
Sewerline
Venice Sewer Plant 609 to be removed
removed from Basins & Channel
End Revetment East Side
Prolongation of ℄ of N. Jetty
N 60° 18' 33" E
NORTH JETTY
ENTRANCE
N 61° 18' 00" E
MIDDLE JETTY
Existing Ballona Creek jetties
BALLONA CREEK FLOOD CONTROL CHANNEL
290'± Temporary Construction Easement
Sewer Construction by Others
OCEAN FRONT WALK
20' Wide Sewer R/W
CITY OF LOS ANGELES / COUNTY OF LOS ANGELES
WASHINGTON BLVD
WASHINGTON ST
OXFORD AVE
DELL AVE
OCEAN AVE
BEACH AVE
VENICE CANAL
35TH AVE
39TH AVE
GRAND AVE
43RD AVE
PL
LAGOON
47TH AVE
50TH AVE
MARITA AVE
53RD AVE
PACIFIC AVE
BALLONA AVE
56TH AVE
62ND AVE
MAXELLA AVE
U S HIGHWAY 101-ALTERNATE (LINCOLN BLVD)
ELECTRIC RAILWAY
CITY OF LOS ANGELES COUNTY OF LOS ANGELES R/W
PACIFIC ELECTRIC RAILWAY
ALLA
CULVER BLVD
I-5
N 4,100,000
N 4,102,000
N 4,104,000
N 4,106,000
N 4,108,000
N 4,110,000
E 4,144,000
E 4,145,000
E 4,146,000
E 4,148,000
E 4,150,000
E 4,152,000
E 4,154,000
E 4,155,000
E 4,158,000
SCALE 500 0 500 1000 FEET

REV. NO.	DATE	REVISION	REV.	CHK.	APP.
A	1-29-60	Relocated Basin H	G.C.	G.D.W.	R.E.L.
B	10-27-60	Added Sewer line & Plant removal	G.C.	S.F.	G.D.W.
C	8-7-61	Revised end of East Revetment	W.F.K.	S.F.	G.D.W.

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES, CALIFORNIA

DRAWN BY: G.D.W.
TRACED BY: D.O.-F.D
CHECKED BY: R.E.L.-W.J.H.
SUBMITTED BY:
CHIEF PLANNING AND REPORTS BR.

PLAYA DEL REY INLET AND HARBOR, CALIFORNIA

GENERAL PLAN OF HARBOR IMPROVEMENT

APPROVAL RECOMMENDED: H W Thompson, CHIEF, ENGINEERING DIVISION
APPROVED: E. T. Hueber, COLONEL, C. E. DISTRICT ENGINEER

SCALE: AS SHOWN
DATE: JUNE 1959
TO ACCOMPANY OCI - CIV 60-5
SHEET 1 OF 17 SHEETS
FILE NO. (D. O. SERIES) 2255-A REV. C

DIETZGEN-POST DREADNAUGHT NO. 100 SEPTEMBER, 1953

MATCH LINE FOR SHEET NO. 3

N

CLUNE AVE

DELL AVE

SANBORN AVE

STREET

Limits of Disposal Area

Salvage Area

GRAND CANAL

BALLONA LAGOON

MARITA AVE

PLACE

WASHINGTON

35TH

39TH

PACIFIC AVE

SPEEDWAY

43RD

46TH

49TH

53RD

56TH

OCEAN FRONT WALK

County Base Line

N-15

N-14

N-13

N-12

N-11

Bulkhead Line

MOLE 2

MOLE 1

BASIN B

BASIN A

N4,104,015.14
E4,149,280.97

N4,103,661.14
E4,149,248.77

N4,103,061.14
E4,149,624.16

N4,102,707.14
E4,149,711.26

N4,102,107.14
E4,150,080.64

CURVE DATA

Control Line	Base Line
Δ=45°50'21"	Δ=60°18'33"
R=1742.00'	R=1700.00'
L=1393.68'	L=1789.41'

BC Sta 42+28.09N

N4,100,463.45 BC
E4,150,793.82

CHANNEL

Existing Revetment

N55°51'27"E 1622.33'

FLOOD CONTROL CHANNEL

Sta. 27+46.28S

N4,099,576.70
E4,151,101.44

Base Line

N57°38'46"E 1220.84'

INSERT

FOR

LINE

MATCH

Existing Bridge

BM Q-767-1945

Sta. 16+97.75

Begin Revetment

Sta.30+00N

Existing 48" Sewer Line
SEE SHT. 8 FOR ELEV.

Sta.15+25.75S

N4,099,855.35
E4,149,727.30

Begin Revetment

N4,098,923.37
E4,150,070.12

Sta.13+25.75S

Sta.11+25.75S

Control Line N60°18'33"E 1227.60'

ENTRANCE CHANNEL

EXISTING NORTH JETTY

N60°18'33"E

EXISTING MIDDLE JETTY

N61°18'00"E

EXISTING SOUTH JETTY

BALLONA CREEK

Limit of Dredging

N4,104,000
E4,145,000

N4,103,000
E4,144,000

N4,102,000

N4,101,000

E4,145,000

N4,100,000
E4,148,000

N4,105,000
E4,148,000

E4,147,000

N4,105,000

E4,152,000

N4,100,000

E4,152,000

E4,151,000

N4,099,000

E4,151,000

N4,098,000

E4,150,000

E4,149,000

N4,098,000

E4,148,000

E4,147,000

N4,099,000

E4,148,000

N4,103,000

N4,102,000

E4,145,000

N4,101,000

E4,146,000

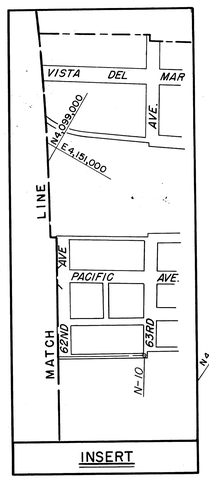
N4,100,000

BASE LINE DATA

STATION	BEARING	DISTANCE	COORDINATE NORTH	COORDINATE EAST
N-10			4,098,421.48	4,150,560.71
N-11			4,100,886.67	4,149,127.86
N-12			4,100,907.07	4,149,115.09
N-13			4,100,965.80	4,149,209.11
N-14			4,102,766.38	4,148,085.75
N-15			4,104,292.70	4,146,993.23
11+25.75 S			4,098,731.28	4,149,719.26
	N 61°18' 00"E	2.00'		
13+25.75 S			4,098,827.33	4,149,894.69
	N 61°18' 00"E	200'		
15+25.75 S			4,098,923.37	4,150,070.12
	N 61°18' 00"E	172'		
16+97.75 S			4,099,005.97	4,150,220.99
	N 57°42' 15"E	1048.53'		
27+46.28 S			4,099,566.19	4,151,107.31
	N 55° 51' 27"E	1961.78'		
47+08.06 E			4,100,667.24	4,152,730.97
	NORTH	872.22'		
55+80.21 E			4,101,539.47	4,152,730.97
	NORTH	1329.65'		
69+09.86 E			4,102,869.11	4,152,730.97
	NORTH	1126.06'		
80+35.92 E			4,103,995.17	4,152,730.97
	NORTH	1101.58'		
91+37.50 E			4,105,096.75	4,152,730.97
	NORTH	1476.40'		
106+13.90 E			4,106,573.15	4,152,730.97
	WEST	1100'		
106+13.90 W			4,106,573.15	4,151,630.97
	SOUTH	827'		
97+86.90 W			4,105,746.15	4,151,630.97
	SOUTH	954'		
88+32.90 W			4,104,792.15	4,151,630.97
	SOUTH	954'		
78+78.90 W			4,103,838.15	4,151,630.97
	SOUTH	954'		
69+24.90 W			4,102,884.15	4,151,630.97
	SOUTH	907.40'		
B.C.60+17.50 W			4,101,976.75	4,151,630.97
	SOUTH	987.62'		
P.I.			4,100,989.13	4,151,630.97
	S 60°18'33"W	987.62'		
E.C. 42+28.09N			4,100,499.94	4,150,773.01
	S 60°18'33"W	1228.05'		
30+00.00 N			4,099,891.66	4,149,706.19

GENERAL NOTES

1. DATUM IS MEAN LOWER LOW WATER (M.L.L.W.).
2. BENCH MARK IS U.S.C.& G.S. STANDARD DISK STAMPED "Q-767-1945", BRASS CAP LEVEL WITH STREET ON THE NORTHWEST WING WALL AT THE NORTH END OF PACIFIC AVE. BRIDGE OVER BALLONA CREEK (PACIFIC AVE. AND 60TH AVE.) ELEVATION 19.728 FEET ABOVE M.L.L.W.
3. GRID BASED ON CALIFORNIA COORDINATE SYSTEM ZONE 7.
4. SURVEYS AND CONTROLS ARE SHOWN ON SHEETS 2, 3, & 4.
5. PLANS OF DREDGING AND REVETMENT ARE SHOWN ON SHEETS 5, 6 & 7.
6. DETAILED SECTIONS ARE SHOWN ON SHEETS 8, 9 & 10.
7. PLAN AND PROFILES OF BEACH DISPOSAL AREA ARE SHOWN ON SHEET 11.
8. LOCATIONS OF TEST HOLES ARE SHOWN ON SHEET 12.
9. BORINGS ARE SHOWN ON SHEETS 13, 14, 15, 16 & 17.



INSERT

PLAN
SCALE 100 0 100 200 300 400 500 FEET

REV. NO.	DATE	REVISION	REV.	CHK.	APP.
A	9-3-59	Added street names.	F.D.	G.D.W.	R.E.L.
B	6-15-60	Revised project lines.	M.D.	J.E.N.	W.J.H.

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES, CALIFORNIA

ENGINEER: G.D.W.
DRAWN BY: W.R.W.-F.D.
CHECKED BY: R.E.L.-W.J.H.
SUBMITTED BY:
CHIEF, PLANNING & REPORTS BR.

PLAYA DEL REY INLET AND HARBOR, CALIFORNIA

DREDGING AND REVETMENT
PLAN AND SURVEY

APPROVAL RECOMMENDED:
CHIEF, ENGINEERING DIVISION

APPROVED:
COLONEL, C. E. DISTRICT ENGINEER

SCALE: AS SHOWN
DATE: JUNE 1959
TO ACCOMPANY
SHEET 2 OF 17 SHEETS
FILE NO. (D. O. SERIES) 2256-A REV. B

BLUE CLOTH 200 MARCH 1956

CW-CON

CORPS OF ENGINEERS

U.S. ARMY

MATCH LINE FOR SHEET NO. 4

MATCH LINE FOR SHEET NO. 2

N

RAILWAY

ELECTRIC

AVE

PACIFIC

OXFORD

STREET

BEACH

AVE

OCEAN

WASHINGTON

DISPOSAL AREA

CITY OF LOS ANGELES

COUNTY OF LOS ANGELES

Sta. 106+13.90E

Sta. 106+13.90W

BASIN F

MOLE 5

BASIN G

MOLE 6

BASIN H

DISPOSAL AREA

BASIN E

MOLE 4

BASIN D

MOLE 3

BASIN C

MOLE 2

BASIN B

MOLE 1

BASIN A

MAIN CHANNEL

ENTRANCE CHANNEL

CONTROL CHANNEL

BALLONA CREEK FLOOD

Toe of Dredge Slope

Bulkhead Line

50' Base Line

50' Transition

Property Line

End of Revetment

Toe of Slope

Construct Revetment Toe

Coast Guard Pier By Others

Limit Section D-D

Project Line

Existing Revetment

Begin Revetment Transition

See Detail "A" above

FOR SECTION D-D SEE SHEET 8

N4,106,153.35 E4,153,307.02

N4,106,296.42 E 4,152,680.97

N 4,105,791.88 E 4,152,680.97

N 4,105,272.27 E 4,152,680.97

N4,105,923.14 E 4,151,680.97

N4,104,863.51 E4,152,680.97

N4,104,170.69 E4,152,680.97

N4,104,447.78 E4,154,048.90

N4,104,058.07 E4,154,273.90

N4,103,658.01 E4,152,680.97

N4,103,138.39 E4,152,680.97

N4,106,523.14 E4,151,688.75

N4,106,523.14 E4,150,932.52

N4,106,511.25 E 4,150,763.21

N4,105,569.14 E4,151,680.97

N4,104,969.14 E4,151,680.97

N4,104,615.14 E4,151,680.97

N4,104,015.14 E4,151,680.97

N4,103,661.14 E4,151,680.97

N4,103,061.14 E4,151,680.97

N4,102,707.14 E4,151,680.97

N4,102,107.14 E4,151,680.97

N4,101,976.74 E4,151,680.97 EC

N4,101,539.46 E4,151,625.46 BC

N4,101,541.46 E4,151,617.71 EC

N4,101,539.46 E4,152,680.97

N4,101,539.46 E4,152,688.97

N4,100,949.06 E4,152,688.97

N4,100,653.26 E4,152,688.97 PI

N4,100,487.24 E4,152,444.16

N4,106,439.65 E4,149,741.35

N4,106,226.08 E4,149,592.56

N4,105,923.14 E4,150,027.48

N 4,105,569.14 E 4,149,916.34

N4,105,796.18 E4,149,590.41 EC

N4,105,649.46 EC E4,149,183.53

N 4,105,733.94 E 4,149,242.37 BC

N4,104,969.14 E4,149,350.97

N 4,105,269.14 E4,149,170.71 BC

N4,104,615.14 E4,149,280.97

Sta 91+37.50E

Sta 97+86.90W

Sta 88+32.90W

Sta 78+78.90W

Sta 69+09.86E

Sta 63+24.90W

Sta 60+17.50W

Sta 55+75.28W

Sta 80+35.92E

Sta 47+08.06

N 30° 00' 00" W. 450.00'

N 69° 00' 00" E. 183.38'

N 69° 00' 00" E. 1312.55'

N 21° 00' 00" E. 1312.55'

N 69° 00' 00" E. 183.38'

N 69° 00' 00" E. 1312.55'

N 21° 00' 00" E. 1312.55'

N 69° 00' 00" E. 183.38'

N 69° 00' 00" E. 183.21'

N 69° 00' 00" E. 1312.55'

N 21° 00' 00" E. 1312.55'

N 69° 00' 00" E. 183.38'

N 77° 00' 24" W. 150.71'

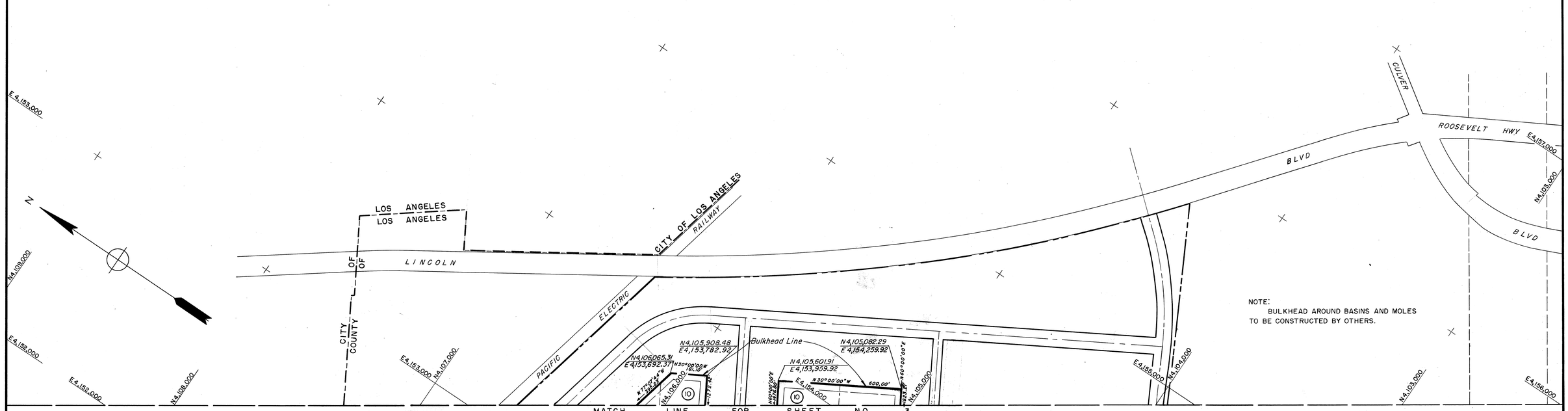
N 77° 00' 24" W. 1017.80'

N 77° 00' 24" W. 1017.80'

N 77° 00' 24" W. 1017.80

CORPS OF ENGINEERS

U.S. ARMY



NOTE:
BULKHEAD AROUND BASINS AND MOLES TO BE CONSTRUCTED BY OTHERS.

PLAN

SCALE 100 0 100 200 300 400 500 FEET

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES, CALIFORNIA

PLAYA DEL REY INLET AND HARBOR, CALIFORNIA

DREDGING AND REVETMENT
PLAN AND SURVEY

ENGINEER: G.D.W.
DRAWN BY: W.R.W.-F.D.
CHECKED BY: R.E.L.-W.J.H.
SUBMITTED BY: Simon Gottlieb, CHIEF, PLANNING & REPORTS BR.

APPROVAL RECOMMENDED: H. W. Thompson, CHIEF, ENGINEERING DIVISION

APPROVED: C. T. Newton, COLONEL, C. E., DISTRICT ENGINEER

SCALE: AS SHOWN

DATE: JUNE 1959

TO ACCOMPANY

SHEET 4 OF 17 SHEETS

FILE NO. (D. O. SERIES) 2258-A

CORPS OF ENGINEERS

U.S. ARMY

MATCH LINE FOR SHEET NO. 6

See Sheet 9

See Sheet 9

See Sheet 9

See Sheet 9

See Sheet 8

See Sheet 8

See Sheet 8

CORPS OF ENGINEERS

U.S. ARMY

MATCH LINE FOR SHEET NO. 7

MATCH LINE FOR SHEET NO. 5

NOTE
BULKHEAD TO BE CONSTRUCTED BY OTHERS.
SEE SHEET 10 FOR TYPICAL SECTION, MOLE 1 THROUGH 5 & 6.
SEE SHEET 10 FOR SECTION THROUGH BULKHEAD LINE.
DATUM IS MEAN LOWER LOW WATER.
ALL EXISTING SEWER LINES AND SEWER PLANTS TO BE PROTECTED.
EXISTING POWER LINES TO BE PROTECTED UNTIL REMOVED BY OTHERS
ALL EXISTING FUEL, OIL, GAS AND WATER LINES TO BE REMOVED BY OTHERS PRIOR TO DREDGING

PLAN
SCALE 100 0 100 200 300 400 500 FEET

REV NO	DATE	REVISION	REV	JHK	APP
A	9-3-59	Added power line, storm drain, limit of dredging pipe lines & note	F.D.	G.D.W.	R.E.L.
B	1-29-60	Relocated Basin H.	G.C.	G.D.W.	R.E.L.
C	6-15-60	Stock pile added, and project line revised	M.D.	J.E.W.	W.J.H.
D	10-27-60	Added Sewer Line & Plant removal	G.C.	S.F.	G.D.W.
E	8-7-61	Revised end of Coal Pavement and N. bulkhead - Basin D	W.F.K.	S.F.	G.D.W.

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES, CALIFORNIA

PLAYA DEL REY INLET AND HARBOR, CALIFORNIA

DREDGING AND REVETMENT
DETAIL PLAN

ENGINEER: G.D.W.
DRAWN BY: W.R.W.-F.D.
CHECKED BY: R.E.L.-W.J.H.
SUBMITTED BY: CHIEF, PLANNING & REPORTS BR.

APPROVAL RECOMMENDED: CHIEF, ENGINEERING DIVISION

APPROVED: COLONEL, C. E., DISTRICT ENGINEER

SCALE: AS SHOWN
DATE: JUNE 1959
TO ACCOMPANY OCI - CIV 60-5
SHEET 6 OF 17 SHEETS
FILE NO. (D. O. SERIES) 2260-A REV. E

CORPS OF ENGINEERS

U.S. ARMY

INSERT

SECTION D-D
NOT TO SCALE

SECTION E-E
NOT TO SCALE

SECTION A-A
NOT TO SCALE

SECTION B-B
NOT TO SCALE

SECTION C-C
NOT TO SCALE

PLAN
SCALE 100 0 100 200 300 400 500 FEET

MATCH LINE FOR SHEET NO. 6

REV. NO.	DATE	REVISION	REV.	CHK	APP
A	10-31-60	Change in Section	G.C.	S.F.	G.D.W.

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES, CALIFORNIA

ENGINEER: G.D.W.
DRAWN BY: W.R.W., F.D.
CHECKED BY: R.E.L.-W.J.H
SUBMITTED BY:
CHIEF, PLANNING & REPORTS BR.

PLAYA DEL REY INLET AND HARBOR, CALIFORNIA

DREDGING AND REVETMENT
DETAIL PLAN AND SECTIONS

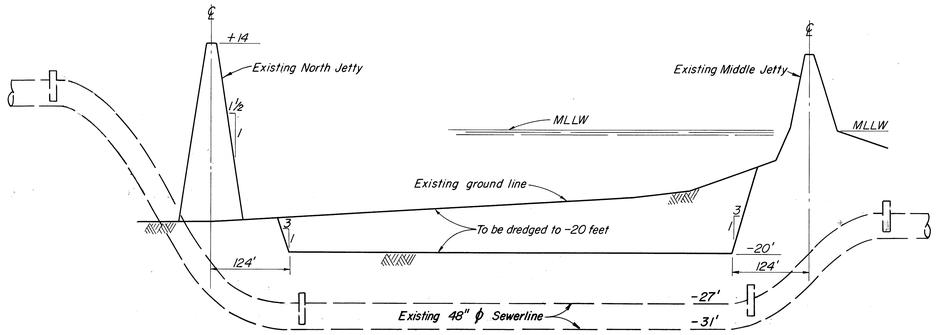
APPROVAL RECOMMENDED:
CHIEF, ENGINEERING DIVISION

APPROVED:
COLONEL, C. E., DISTRICT ENGINEER

SCALE: AS SHOWN
DATE: JUNE 1959
TO ACCOMPANY OCI-CIV 60-5
SHEET 7 OF 17 SHEETS
FILE NO. (D. O. SERIES) 2261-A REV A

CORPS OF ENGINEERS

U.S. ARMY

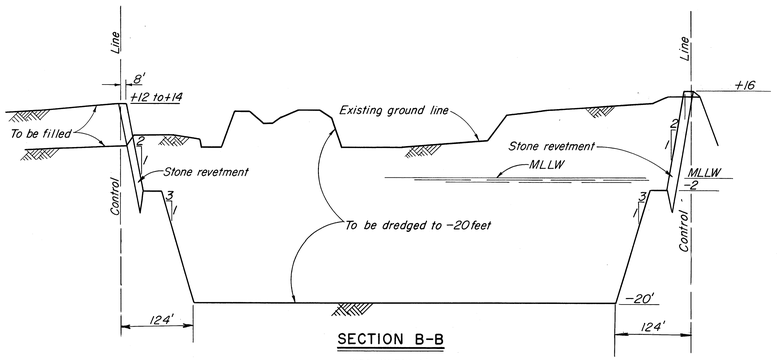


SECTION A-A

(SEE SHEET 5)

VERT. SCALE 10 0 10 20 30 FEET

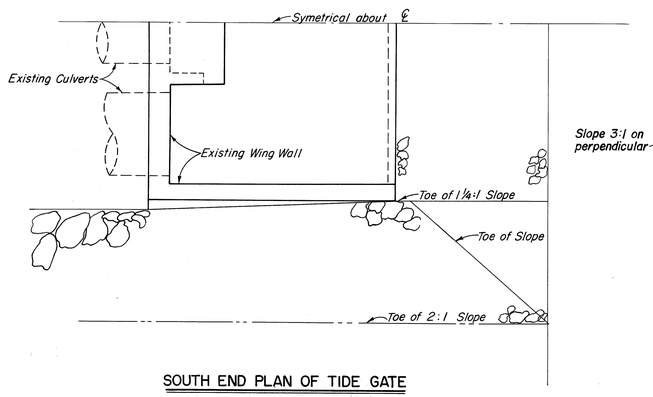
HOR. SCALE 100 0 100 200 300 FEET



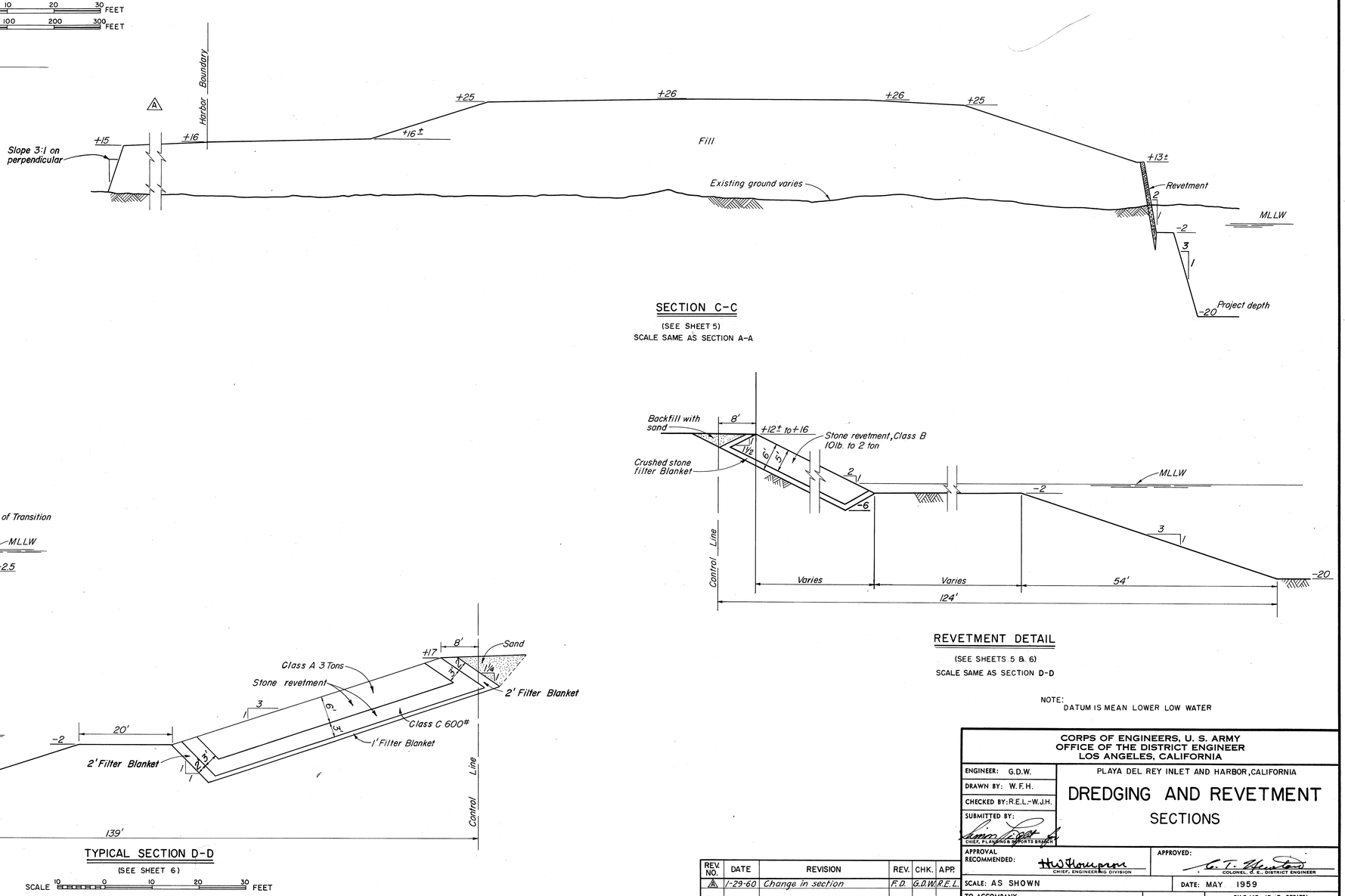
SECTION B-B

(SEE SHEET 5)

SCALE SAME AS SECTION A-A



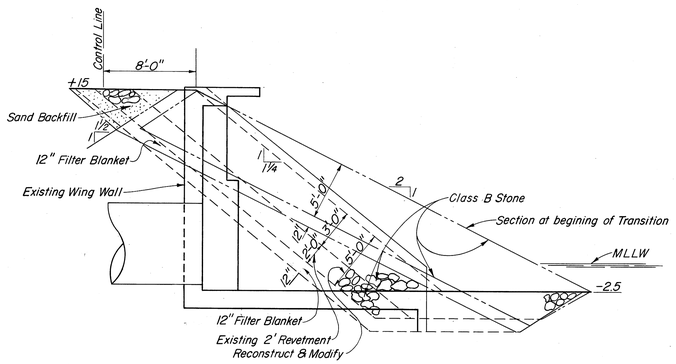
SOUTH END PLAN OF TIDE GATE



SECTION C-C

(SEE SHEET 5)

SCALE SAME AS SECTION A-A



REVETMENT SECTION AT TIDE GATE

NORTH SIDE OF ENTRANCE CHANNEL

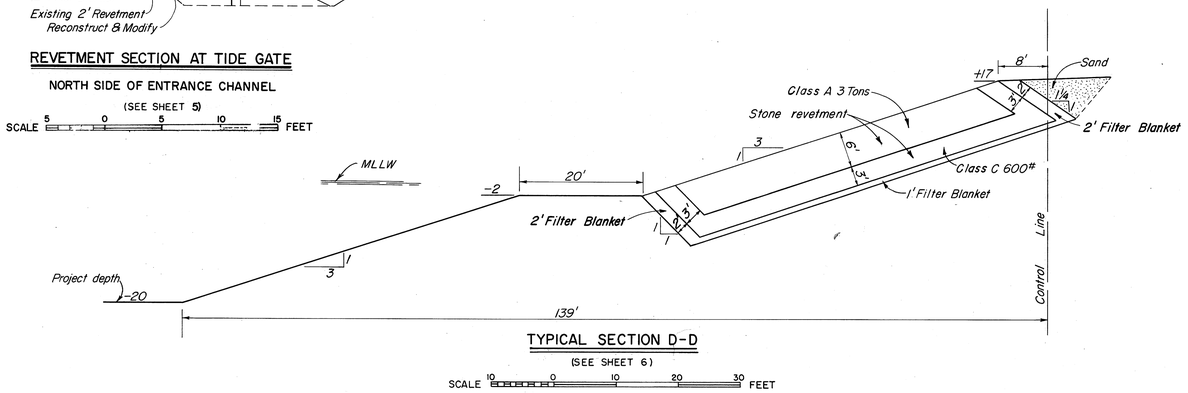
(SEE SHEET 5)

SCALE 5 0 5 10 15 FEET

REVETMENT DETAIL

(SEE SHEETS 5 & 6)

SCALE SAME AS SECTION D-D



TYPICAL SECTION D-D

(SEE SHEET 6)

SCALE 10 0 10 20 30 FEET

NOTE:
DATUM IS MEAN LOWER LOW WATER

REV. NO.	DATE	REVISION	REV.	CHK.	APP.
A	1-29-60	Change in section	F.D.	G.D.W.	R.E.L.

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES, CALIFORNIA

ENGINEER: G.D.W.
DRAWN BY: W.F.H.
CHECKED BY: R.E.L.-W.J.H.
SUBMITTED BY:
CHIEF, PLANNING & REPORTS BRANCH

PLAYA DEL REY INLET AND HARBOR, CALIFORNIA

DREDGING AND REVETMENT SECTIONS

APPROVAL RECOMMENDED: CHIEF, ENGINEERING DIVISION

APPROVED: COLONEL, C. E., DISTRICT ENGINEER

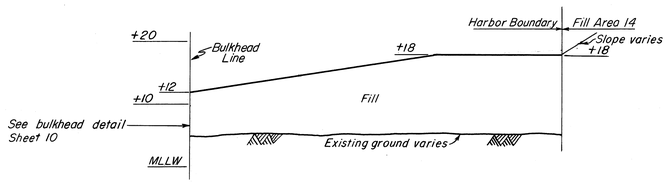
SCALE: AS SHOWN

DATE: MAY 1959

TO ACCOMPANY

SHEET 8 OF 17 SHEETS

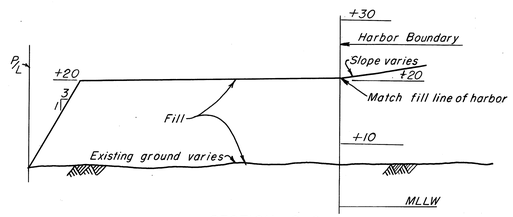
FILE NO. (D. O. SERIES) 2262-A REV. A



SECTION E-E

(SEE SHEET 6)

SCALE SAME AS SECTION G-G



SECTION G-G

(SEE SHEET 5)

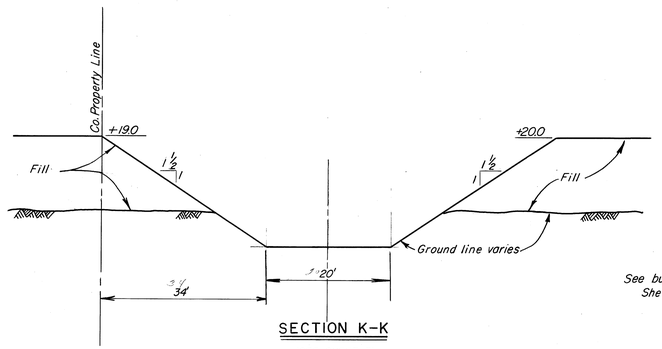
HOR. SCALE 50 0 50 100 150 FEET

VERT. SCALE 10 0 10 20 30 FEET

SECTION I-I

(SEE SHEET 6)

SCALE SAME AS SECTION G-G

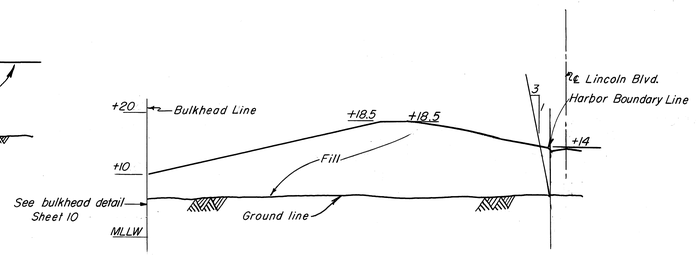


SECTION K-K

(SEE SHEET 7)

HOR. & VERT. SCALE 10 0 10 20 30 FEET

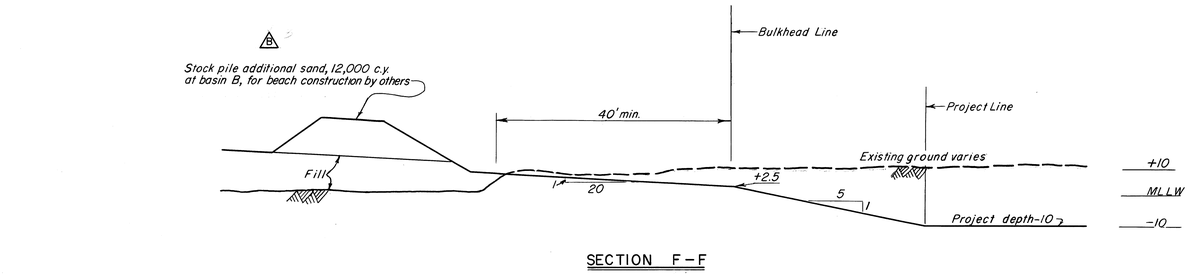
NOTE:
GRADE FROM +3.30 AT LINCOLN BLVD. TO +2.82 AT BASIN H TURN.



SECTION L-L

(SEE SHEETS 6 & 7)

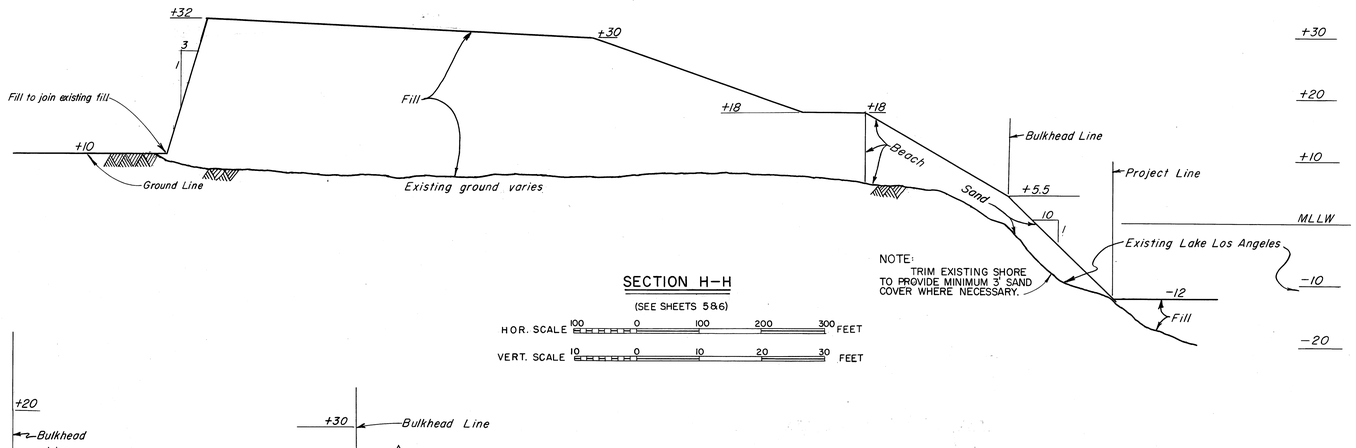
SCALE SAME AS SECTION J-J



SECTION F-F

(SEE SHEET 5)

HOR. & VERT. SCALE 10 0 10 20 30 40 50 FEET

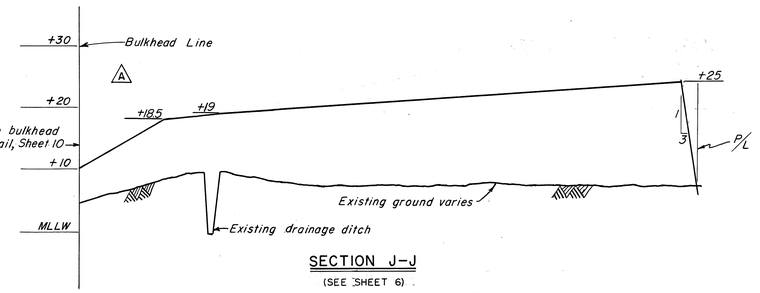


SECTION H-H

(SEE SHEETS 5&6)

HOR. SCALE 100 0 100 200 300 FEET

VERT. SCALE 10 0 10 20 30 FEET

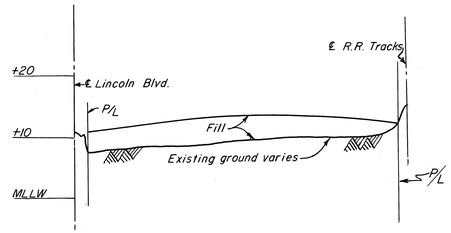


SECTION J-J

(SEE SHEET 6)

HOR. SCALE 100 0 100 200 300 400 500 FEET

VERT. SCALE 10 0 10 20 30 FEET



SECTION M-M

(SEE SHEET 7)

SCALE SAME AS SECTION J-J

NOTE:
DATUM IS MEAN LOWER LOW WATER.

REV. NO.	DATE	REVISION	REV.	CHK.	APP.
A	1-29-60	Change in section	F.D.	G.D.W.	R.E.L.
B	10-31-60	Deleted Stockpile - Basin C	G.C.	S.F.	G.D.W.

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES, CALIFORNIA

ENGINEER: G.D.W.

DRAWN BY: E.P.

CHECKED BY: R.E.L.– W.J.H.

SUBMITTED BY: CHIEF, PLANNING & REPORTS BRANCH

PLAYA DEL REY INLET AND HARBOR, CALIFORNIA

DREDGING AND REVETMENT

SECTIONS

APPROVAL RECOMMENDED: H.T. Thompson, CHIEF, ENGINEERING DIVISION

APPROVED: C. T. Myer, COLONEL, C. E., DISTRICT ENGINEER

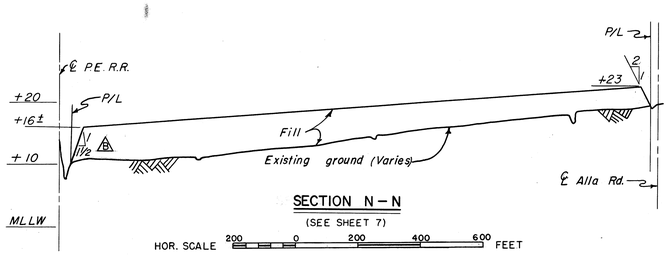
SCALE: AS SHOWN

DATE: MAY 1959

TO ACCOMPANY OCI – CIV 60-5

SHEET 9 OF 17 SHEETS

FILE NO. (D. O. SERIES) 2263-A REV. B

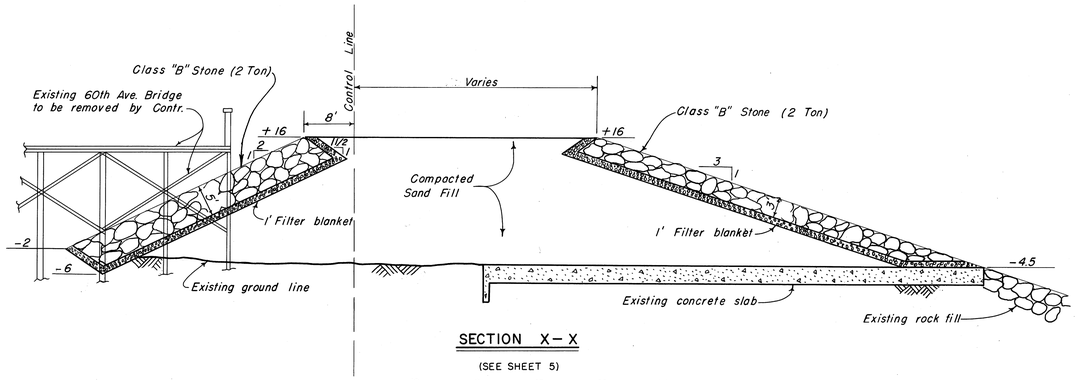


SECTION N–N

(SEE SHEET 7)

HOR. SCALE 200 0 200 400 600 FEET

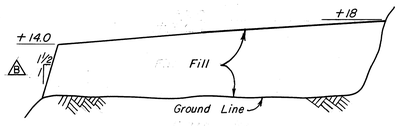
VERT. SCALE 10 0 10 20 30 FEET



SECTION X–X

(SEE SHEET 5)

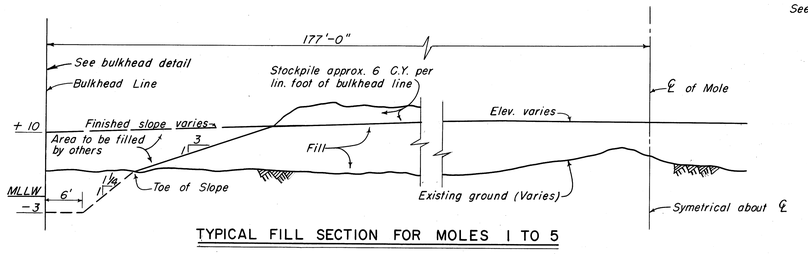
HOR. & VERT. SCALE 10 0 10 20 30 FEET



SECTION O–O

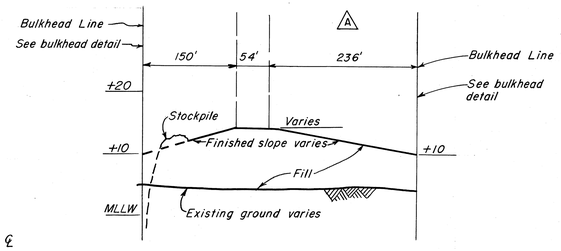
(SEE SHEET 7)

SCALE SAME AS SECTION N–N



TYPICAL FILL SECTION FOR MOLES 1 TO 5

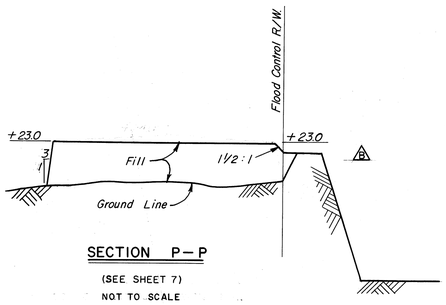
HOR. & VERT. SCALE 10 0 10 20 30 FEET



TYPICAL FILL SECTION FOR MOLE 6

HOR. SCALE 100 0 100 200 300 FEET

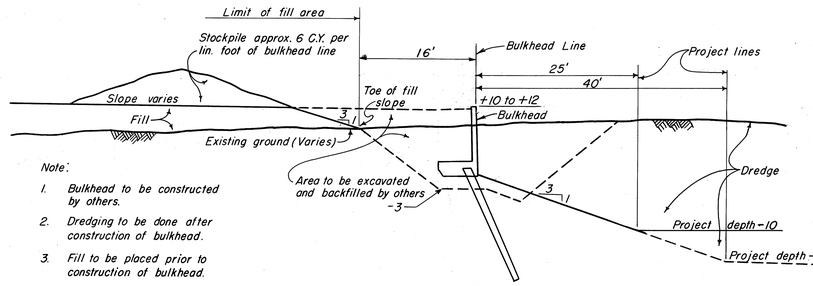
VERT. SCALE 10 0 10 20 30 FEET



SECTION P–P

(SEE SHEET 7)

NOT TO SCALE

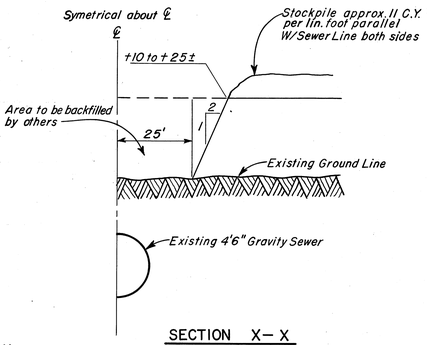


Note:

1. Bulkhead to be constructed by others.
2. Dredging to be done after construction of bulkhead.
3. Fill to be placed prior to construction of bulkhead.

TYPICAL SECTION THRU BULKHEAD LINES

SCALE SAME AS ABOVE

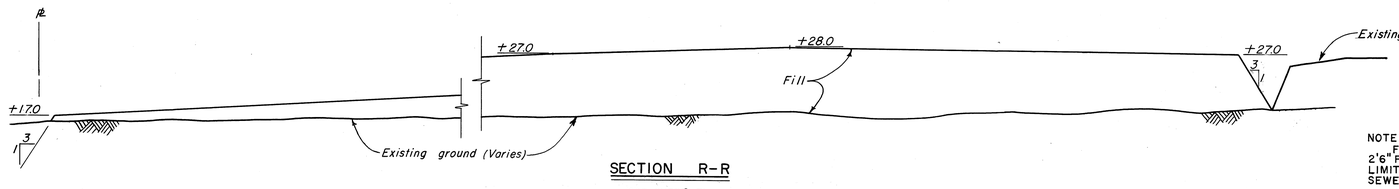

Symetrical about ℄
Stockpile approx. 11 C.Y. per lin. foot parallel W/Sewer Line both sides
+10 to +25±
Area to be backfilled by others
25'
Existing Ground Line
Existing 4'6" Gravity Sewer

SECTION X–X

(SEE SHEET 6)

NOT TO SCALE

NOTE:
DATUM IS MEAN LOWER LOW WATER



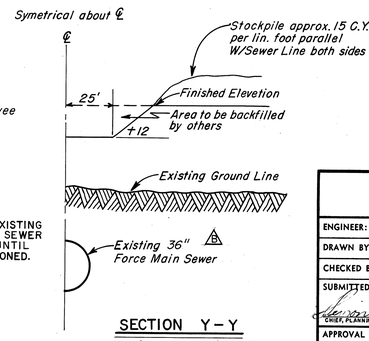
SECTION R–R

(SEE SHEET 7)

HOR. SCALE 50 0 50 100 150 FEET

VERT. SCALE 10 0 10 20 30 FEET

NOTE:
FILL OVER EXISTING 2'6" FORCE MAIN SEWER LIMITED TO +12 UNTIL SEWER IS ABANDONED.


Symetrical about ℄
Stockpile approx. 15 C.Y. per lin. foot parallel W/Sewer Line both sides
25'
Finished Elevation
Area to be backfilled by others
+12
Existing Ground Line
Existing 36" Force Main Sewer

SECTION Y–Y

(SEE SHEET 6)

NOT TO SCALE

REV. NO.	DATE	REVISION	REV.	CHK.	APP.
A	1-29-60	Change in section	F.D.	G.D.W.	R.E.L.
B	10-31-60	Change in section	G.C.	S.F.	G.D.W.

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES, CALIFORNIA

ENGINEER: G.D.W.

DRAWN BY: D.O.

CHECKED BY: R.E.L.–W.J.H.

SUBMITTED BY: Chief, Planning & Reports Branch

PLAYA DEL REY INLET AND HARBOR, CALIFORNIA

DREDGING AND REVETMENT
SECTIONS

APPROVAL RECOMMENDED: Chief, Engineering Division

APPROVED: Colonel, C. E., District Engineer

SCALE: AS SHOWN

DATE: MAY 1959

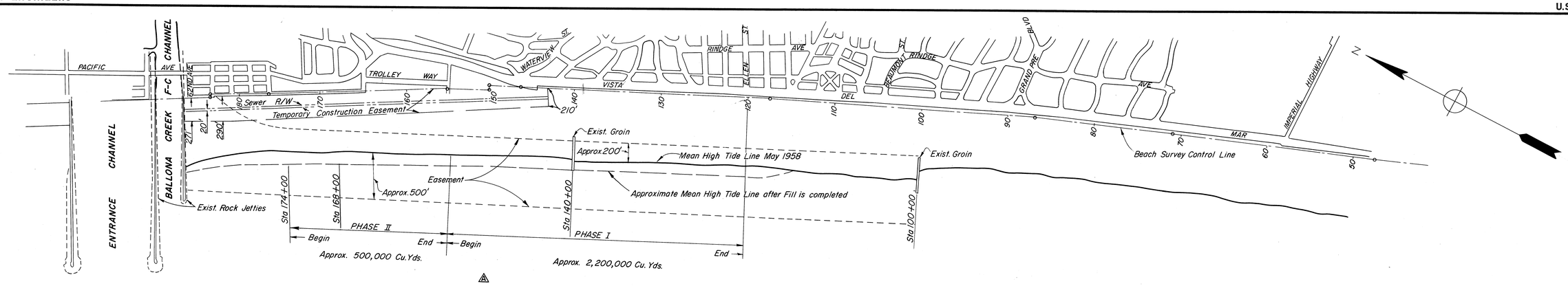
TO ACCOMPANY OCI–CIV 60-5

SHEET 10 OF 17 SHEETS

FILE NO. (D. O. SERIES) 2264-A REV.B

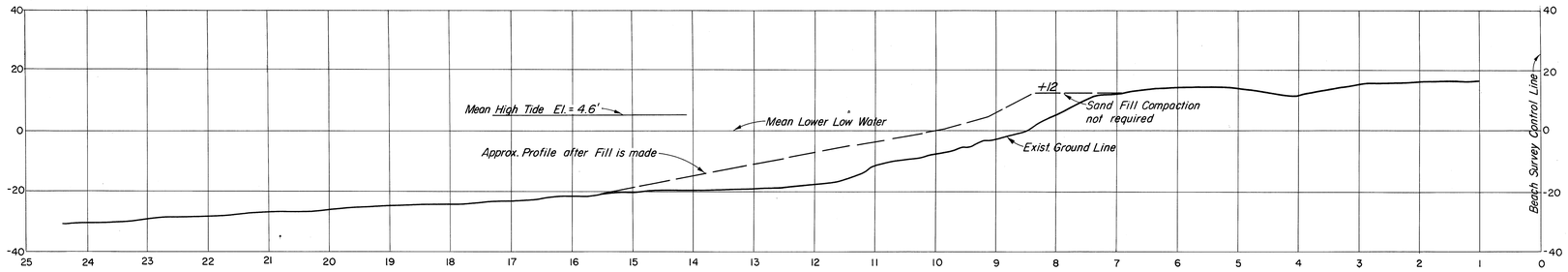
CORPS OF ENGINEERS

U.S. ARMY



PLAN

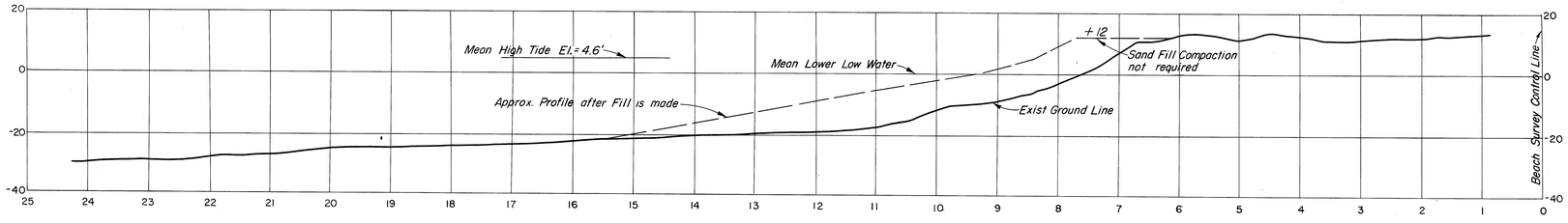
SCALE 500 0 500 1000 FEET


40
20
0
-20
-40
25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
Mean High Tide El.= 4.6'
Mean Lower Low Water
Approx. Profile after Fill is made
+12
Sand Fill Compaction not required
Exist Ground Line
Beach Survey Control Line

PROFILE AT STATION 120+00

HOR. SCALE 100 0 100 200 FEET

VERT. SCALE 10 0 10 20 30 40 50 FEET


20
0
-20
-40
25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
Mean High Tide El.= 4.6'
Mean Lower Low Water
Approx. Profile after Fill is made
+12
Sand Fill Compaction not required
Exist Ground Line
Beach Survey Control Line

PROFILE AT STATION 166+00

HOR. SCALE 100 0 100 200 FEET

VERT. SCALE 10 0 10 20 30 40 50 FEET

NOTE:
DATUM IS MEAN LOWER LOW WATER.

REV. NO.	DATE	REVISION	REV.	CHK.	APP.
1	10-31-60	Changed Fill Quantities & Locations.	G.C.	S.F.	G.D.W.

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES, CALIFORNIA

ENGINEER: G. D. W.
DRAWN BY: W.F.H.
CHECKED BY: R.E.L.-WJ.H.
SUBMITTED BY: CHIEF, PLANNING & REPORTS BRANCH

PLAYA DEL REY INLET AND HARBOR, CALIFORNIA

BEACH DISPOSAL AREA
PLAN AND PROFILES

APPROVAL RECOMMENDED: CHIEF, ENGINEERING DIVISION

APPROVED: COLONEL, C.E., DISTRICT ENGINEER

SCALE: AS SHOWN

DATE: JUNE 1959

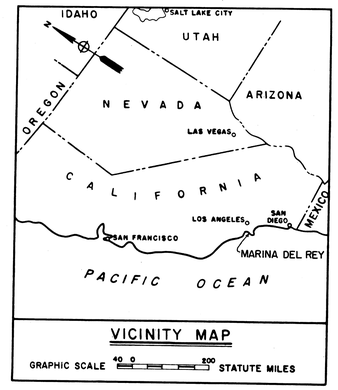
TO ACCOMPANY OCI - CIV 60-5

SHEET 11 OF 17 SHEETS

FILE NO. (D. O. SERIES) 2265-A REV.A

CORPS OF ENGINEERS

US ARMY



VICINITY MAP

GRAPHIC SCALE 40 0 200 STATUTE MILES

LEGEND

- 2 ○ TEST HOLES DRILLED BY CITY OF LOS ANGELES, SEPT. 1956.
- 4 ● TEST HOLES DRILLED WITH A POWER AUGER BY LOS ANGELES DISTRICT CORPS OF ENGINEERS.

  T.H.1 - T.H. 14 WERE DRILLED USING A 16" BUCKET AND 6" AUGER, MARCH AND APRIL 1945.

  T.H.15 - T.H.38 WERE DRILLED USING A 16" BUCKET, SEPT. 1956

  T.H 39 - T.H.41 WERE DRILLED WITH A 16" BUCKET, OCTOBER 1956.

  T.H.42 - T.H.48 OFFSHORE HOLES FROM WHICH SURFACE SAMPLE AND SAMPLE 18" BELOW GROUND SURFACE WERE OBTAINED BY DIVERS, SEPT 1956
- 1 ◉ TEST HOLES DRILLED WITH ROTARY WASH BORING EQUIPMENT BY THE FIRM OF MAURSETH AND HOWE, LOS ANGELES.

  T.H. 1 - T.H 14 AND T.H 104 - T.H. 146 WERE DRILLED NOV 1956 - MARCH 1957.

  T.H 201 - T.H 1153 WERE DRILLED FEBRUARY - APRIL 1959.
- (20) PROJECT DEPTH
- SM GROUP SYMBOL FROM UNIFIED SOIL CLASSIFICATION SYSTEM. SOILS WERE CLASSIFIED FROM GEOLOGIST'S DESCRIPTION AND LABORATORY CLASSIFICATION TESTS. FOR A COMPLETE DESCRIPTION OF THE UNIFIED SOIL CLASSIFICATION SYSTEM, SEE "TECHNICAL MEMORANDUM NO. 3-357," PREPARED FOR OFFICE, CHIEF OF ENGINEERS BY WATERWAYS EXPERIMENT STATION, VICKSBURG, MISSISSIPPI, MARCH 1953, ON FILE IN THE LOS ANGELES DISTRICT OFFICE.
- $\frac{W}{5}$ DEPTH OF WATER BELOW GROUND LEVEL.

GENERAL NOTES

1. SOIL LOGS REPRESENT CONDITIONS FOUND ONLY AT DESIGNATED LOCATIONS AND ARE INTENDED TO APPLY ONLY WHERE TEST HOLES HAVE ACTUALLY BEEN DRILLED OR SAMPLES TAKEN.
2. FOR ADDITIONAL DESCRIPTION OF CONDITIONS ENCOUNTERED, SEE DETAILED LOGS ON FILE IN THE LOS ANGELES DISTRICT OFFICE AND IN THE CONSTRUCTION AND STORM DRAIN DIVISION, OFFICE OF THE COUNTY ENGINEER.
3. UNDISTURBED SAMPLES WERE OBTAINED AT INTERVALS OF APPROXIMATELY 5 TO 15 FEET.
4. ALL CLAYS (CL AND CH) ENCOUNTERED VARIED FROM SOFT TO MEDIUM STIFF, BASED UPON LABORATORY CLASSIFICATION TESTS.
5. FOSSILIFEROUS REFERS TO PRESENCE OF SHEEL FRAGMENTS.

REV. NO.	DATE	REVISION	REV.	CHK.	APP.
1	1-29-60	Relocated Basin H	G.C.	G.D.W.	R.F.L.

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES, CALIFORNIA

DRAWN BY:

TRACED BY: F.D.-W.R.W.

CHECKED BY: J.W.R.-C.A.F.

SUBMITTED BY: Chas. A. Fisher, CHIEF, FDN. & MATERIALS, BR.

APPROVAL RECOMMENDED: H. W. Shannon, CHIEF, ENGINEERING DIVISION

APPROVED: C. T. Horn, COLONEL, C. E. DISTRICT ENGINEER

PLAYA DEL REY INLET AND HARBOR, CALIFORNIA

FOUNDATION EXPLORATION
LOCATION OF TEST HOLES

SCALE: AS SHOWN

DATE: JUNE 1959

TO ACCOMPANY DATED:

SHEET 12 OF 17 SHEETS

FILE NO. (D. O. SERIES) 2266-A REV A

DIETERICH-POST DREADNAUGHT NO. 100 SEPTEMBER, 1953

CORPS OF ENGINEERS

U.S. ARMY

ELEVATION IN FEET

+15 +10 +5 0 MLLW −5 −10 −15 −20 −25 −30 −35 −40

T.H.36 El.+5
0.0 CL CLAY, gray, with black and rust colored spots; high dry strength
W 4.0
SM SILTY SAND, fossil shells present
20.0

T.H.32 El.+6
0.0 SM SILTY SAND, brown; 8' of casing used and water added
4.0 CL CLAY, dark greenish gray; medium to stiff
7.0 ML SILT, greenish gray; soft
10.0 W 11.0 SM SILTY SAND, dark gray: fossiliferous
17.0 SC CLAYEY SAND, greenish gray; fossiliferous; highly organic; 5 bags of mud and water added
20.0 ML SILT, greenish gray; fossiliferous soft
26.0 SM SILTY SAND, dark gray
30.0

T.H.29 El.+11
0.0 CL CLAY, dark brown
2.0 CH CLAY, fat; dark gray to black
3.0 CL CLAY, light greenish gray
5.5 W 7.0 ML SILT
2 sacks of mud and water added at 12'
SM SILTY SAND, light greenish gray
25.5 ML SILT, dark grayish green; firm; fossiliferous
28.5 30.0 CH CLAY, fat

T.H.1 El.+14
0.0 SM SAND and SILT
8.0 ML SILT
13.0 SM SAND and SILT
43.0 ML SILT and SAND
48.0 SM SAND and SILT
53.0 ML SILT
55.0

T.H.25 El.+8
0.0 SP SAND, light grayish brown, 8' of casing used and water introduced into hole
6.0 SC CLAYEY SAND, dark to light gray; soft; fossiliferous
9.0 W 12.0 SM SILTY SAND, fossiliferous
13.5 ML SILTY, dark gray; fossiliferous
16.5 SM SILTY SAND
24.0 ML SILT
27.0 SM SILTY SAND
30.0

T.H.3 El.+18
0.0 SM SAND and SILT
3.0 SP SAND
20.0 ML SILT and SAND
22.0 SM SAND and SILT
29.0 SP SM SAND, and SAND and SILT
43.0 SM SAND and SILT
53.0

T.H.21 El.+16
0.0 SP SAND, white to dark gray; 16' of casing used
W 10.0 12.5 SP SC CLAYEY GRAVELLY SAND; fossils
15.5 16.0 SP SAND, cobbles to 5"
SC CLAYEY SAND, greenish gray; stiff, fossils
18.5 SM SILTY SAND, dark gray; highly fossiliferous
22.0 SP SM SAND, dark gray; fossil sea shells
25.0 26.0 SM SILTY SAND, shells
SW SM SAND, dark gray shells
32.0 SP SM SAND, dark gray shells
35.0

T.H.1 El.+14.9
0.0 SAND, compact; fine; beach; some shells
W 10.0 SAND and GRAVEL
SP SAND, gray; compact
SAND, gray; compact; shells and gravel
SAND, gray; compact
50.0
DRILLED BY CITY OF LOS ANGELES, 1956.

T.H.20 El.+14
0.0 Water added @ 0'
W 12.0 SP SAND, light gray to light brown
Occasional gravel to 2" at 15' to 18'
Shell fragments at 18' to 22'; 50% gravel and cobbles to 6" at 22' to 25'
Rotary mud added @ -24'
25.0 SM SILTY SAND, blue, black; fossiliferous
Occasional gravel to 2"
38.5 40.0 SC CLAYEY SAND, black; gravel to 3"

T.H.15 El.+13
0.0 Water added from 0'
W 9.0 SP SAND, light gray to light brown
27.0 Rotary mud added @ 24'
SM SILTY SAND, dark; blue-gray to black; occasional fossil and 3" gravel at 30' to 36'
36.0

T.H.42 El.+20
0.0 1.5 SM SILTY SAND
SAND, shells

T.H.43 El.+22.8
0.0 1.5 SM SILTY SAND

T.H.44 El.+25
0.0 1.5 SM SILTY SAND

T.H.41 El.+9
0.0 SANDY CLAY, dark brown
CL
9.0 W 12.0 SM SILTY SAND, brown to gray; sand with less than 40% silt
18.0 ML SANDY SILT, brown to reddish brown; occasional gravel to 1" in diameter
24.0

T.H.40 El.+5.3
0.0 CH CLAY, gray; plastic
3.0 CL SANDY CLAY
6.0 ML SILT, brown; some plasticity; 1ft. layer of gray sand at 10"
W 11.0 14.0 SM SILTY SAND, poorly graded; some gravel to 1"
17.0 ML SILT, similar to above
21.0 SM GRAVELLY SAND with less than 70% silt; poorly graded; gravel to 2"

T.H.39 El.+4.5
0.0 ML SILT, dark gray
3.0 W 4.5 CH CLAY, highly plastic
5.0 CL CLAY & SHELLS, shells constitute about 1/2 of the material
11.0 MH SILT, gray plastic; numerous shells
13.0 16.0 SM SILT SAND, dark gray; few shell fragments
CH CLAY, gray; highly plastic
20.0

T.H.8 El.+6
0.0 CL CLAY
4.0 SAND
SAND, black
SP
Sand, coarse
SAND and GRAVEL
SAND, fine
34.0

T.H.38 El.+8
0.0 SC CLAYEY SAND, brown, broken concrete & asphalt fragments to 12"
4.0 CL CLAY, gray; hole squeezing
W 7.0 ML SILT, gray with rust stains & small amount fossil remains.
10.0 SM SILTY SAND, black to blue-black; occasional fossil shell
20.0

T.H.34 El.+5
0.0 CH CLAY, fat; dark brown
2.0 ML SILT, light greenish gray
4.0 CH CLAY, light greenish gray, fat; caliche present
ML SILT, dark greenish gray; soft
W 10.0 14.0 SM SILTY SAND, dark gray; fossiliferous
17.0 SC CLAYEY SAND, dark gray
20.0 SM SILTY SAND, dark gray

T.H.33 El.+13
0.0 SM SILTY SAND, brown; fill material
9.0 MH SILT, dark blackish gray to light grayish green; fossiliferous
11.5 CH CLAY, light greenish gray, highly plastic
W 12.0 ML 3 sacks of mud @ 23'
15.5 SM SILTY SAND, dark gray, fossiliferous
W 23.0
30.0

T.H.28 El.+10
0.0 SAND, light grayish brown; 8' of casing & water added to hole
3.0 SP SM SILTY GRAVELLY SAND, cobbles to 4"
6.0 18.0 CH CLAY, fat; dark greenish gray; fossiliferous
W 12.0 SM SILTY SAND, dark gray; fossiliferous
9.5 ML SILT, dark grayish green; fossiliferous
11.0 12.0 SM SILTY SAND, dark gray; fossiliferous
24.0 ML SILT, dark gray; fossiliferous
30.0 SM SILTY SAND, dark gray; fossiliferous
35.0

T.H.22 El.+14
0.0 SP SM GRAVELLY SILTY SAND, white to light brown; occasional cobble to 4" color change to dark brown to black @ 9'
W 12.0 SM SILTY SAND, drilling mud added @ 21'
16.0 CL CLAY, dark gray-green
18.0 CL SM CLAY-SILT, black; occasional fossil
SILTY SAND, dark, blue-gray; fossiliferous; occasional cobble to 4"
35.0

T.H.13 El.+16
0.0 SM SAND and SILT
15.0 GM SAND, coarse and GRAVEL
19.0 GP GRAVEL, 3" to 6" cobbles
22.0 SM SAND, fine; SILT, black
48.0

T.H.16 El.+13
0.0 Water added @ 0'
W 10.0 SP SAND, light-gray to light brown
21.0 SP SM SAND, dark gray, rotary mud added @ 24'
24.0 SM SAND, dark blue-gray to black; occasional fossil
30.0 SP SM SAND, occasional fossil
33.0 SM SILTY SAND, occasional fossil
36.0

T.H.48 El.+12
0.0 1.5 SP SAND

T.H.24 El.+23
0.0 SAND, light-brown to white
SP
W 8.5 SAND, light gray to light brown
Some gravel to 1"
24.0 26.0 SM SILTY SAND, dark gray to black; rotary mud added at 26'
29.0 SP SM SAND, blue-black
SM SILTY SAND, blue-black
Occasional gravel to 2"
40.0

T.H.18 El.+14
0.0 Water added from surface
SAND, light gray to light brown
W 12.0 SP
Some gravel to 1"
24.0 26.0 SM SILTY SAND, dark gray to black; rotary mud added at 26'
29.0 SP SM SAND, blue-black
SM SILTY SAND, blue-black
Occasional gravel to 2"
40.0

T.H.17 El.+12
0.0 Water added at 0'
W 8.5 SP SAND, light gray to light brown
Color change to blue-black at 21'; fossiliferous
24.0 27.0 SM SILTY SAND, rotary mud added at 24'
SP SM SAND, occasional cobbles to 6"
35.0

T.H.47 El-15
0.0 1.5 SP SAND, shells

T.H.46 El-19.3
0.0 1.5 SP SAND, shells

T.H.45 El-23.5
0.0 1.5 SP SAND

T.H.37 El.+4.5
0.0 CH CLAY, gray-green to yellow-brown; high dry strength; fat
W 3.0 6.0 ML SILT, gray green; highly plastic
CH CLAY; gray-green; fat; fossil shells @ 9'
Color change to black to dark gray @ 11'
15.0 ML SILT, highly plastic, black to dark gray; shells
18.0 20.0 MH SILT, inorganic, highly plastic.

T.H.35 El.+5
0.0 1.0 CH CLAY, fat; dark brown
2.0 ML SILT, light greenish gray
3.5 CH CLAY, fat
W 4.5 6.5 ML SILT, dark greenish gray; fat added 2 bags of mud plus water @ 9.5'
SM SILTY SAND, dark gray; fossiliferous
17.0 20.0 CL CLAY, dark brown; fossiliferous

T.H.31 El.+4.5
0.0 CH CLAY, fat; dark brown
ML SILT, gray; fossiliferous
10.0 mud and water added @ 12'
W 12.0 SM SILTY SAND, fossiliferous
21.0 SILT, dark grayish black; highly organic
23.0 ML
SM SILTY SAND
30.0

T.H.30 El.+8
0.0 ML SILT, gray to brown; fossiliferous
W 14.0 15.5 4 sacks of mud and water @ 15'
SM SILTY SAND, dark gray; fossiliferous
27.5 29.5 CL CLAY, fat; highly organic
30.0 SM SILTY SAND, dark gray; fossiliferous

T.H.27 El.+11.5
0.0 SC CLAYEY SAND, gray with brown to black streaks
4.0 SM SILTY SAND, blue-black, shells and organic plant material
7.0 CH CLAY, fat; fossil shells
10.0 W 12.0 CL CLAY, dark gray-green; stiff
14.0 SM SILTY SAND, black; plentiful fossil shells
30.0

T.H.23 El+5
0.0 Used 12' of casing
SP SILTY GRAVELLY SAND, light brown; sea shells, cobbles to 4"
5.0 SM GRAVELLY SILTY SAND, grayish brown
8.0 SM SILTY SAND, dark gray to light gray
10.0 SW SM GRAVELLY SILTY SAND
W 12.0 SP SAND
15.0 SM SM CLAY-SILT, black fossiliferous; fat
CL CLAY, fat, stiff; fossiliferous
17.0 19.0 ML CLAYEY SAND, black; highly fossiliferous
CH SAND, dark gray
22.0 SC SILTY SAND
25.0 SP SM SAND
28.0 SM SILTY SAND
SP SM SAND
31.0 SM SILTY SAND
35.0

T.H.2 El.+16.6
0.0 SAND, beach; compact
SP
SAND and GRAVEL
SAND, gray
SAND, gray, compact some shells
SAND, gray, fine compact
52.0
DRILLED BY CITY OF LOS ANGELES 1956

VERT. SCALE 5 0 5 10 15 FEET
HOR. SCALE: NONE

NOTE:
ALL TEST HOLES DRILLED BY CORPS OF ENGINEERS EXCEPT AS NOTED.
FOR LEGEND AND GENERAL NOTES SEE SHEET 12
DATUM IS MEAN LOWER LOW WATER

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES, CALIFORNIA

DRAWN BY: J.W.R.
TRACED BY: A.G.
CHECKED BY: W.L.R. C.A.F.
SUBMITTED BY:
CHIEF, FOR. & MATERIALS SECT.

PLAYA DEL REY INLET AND HARBOR, CALIFORNIA

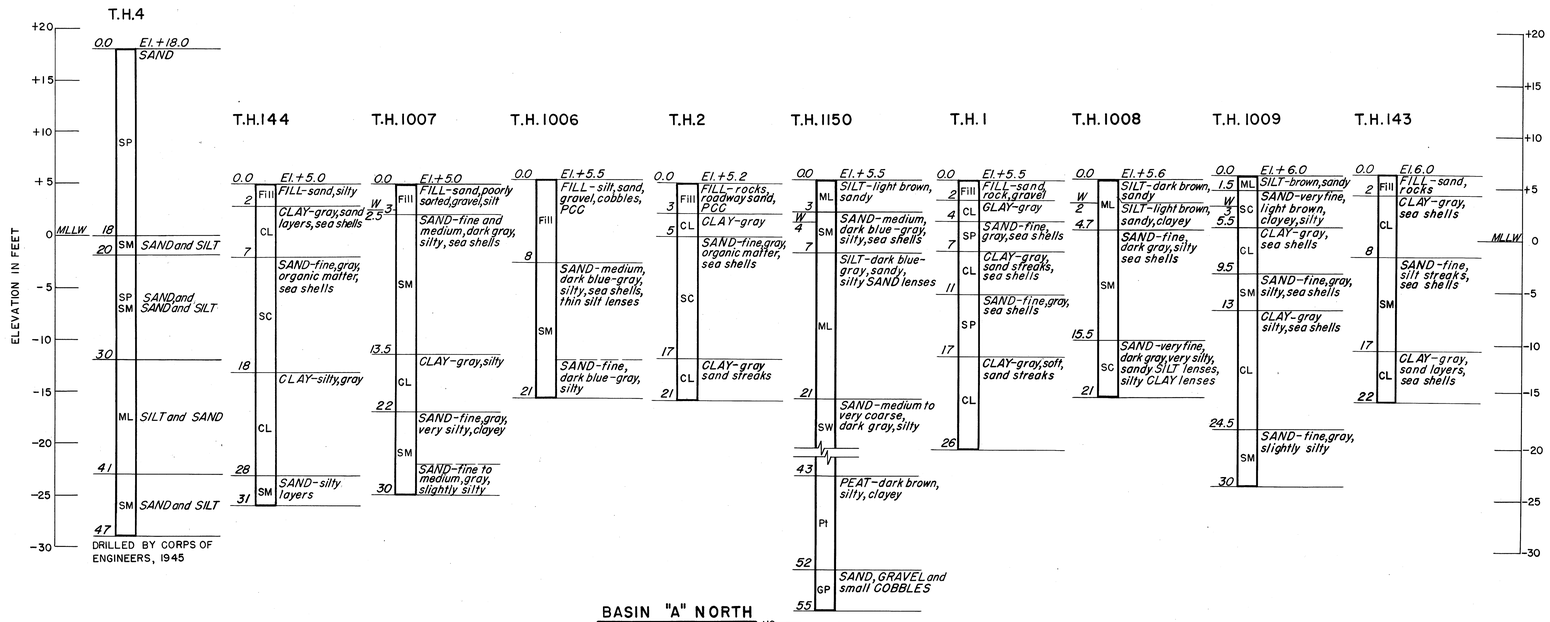
FOUNDATION EXPLORATION
LOGS OF TEST HOLES

APPROVAL RECOMMENDED: CHIEF, ENGINEERING DIVISION
APPROVED: COLONEL, C. E. DISTRICT ENGINEER

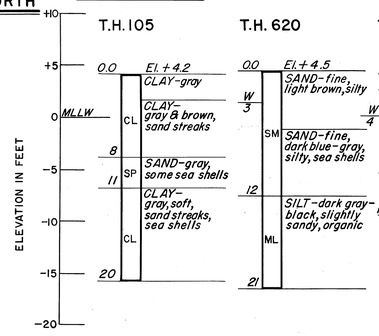
SCALE: AS SHOWN
DATE: SEPTEMBER 1958
TO ACCOMPANY
SHEET 13 OF 17 SHEETS
FILE NO. (D. O. SERIES) 2267-A

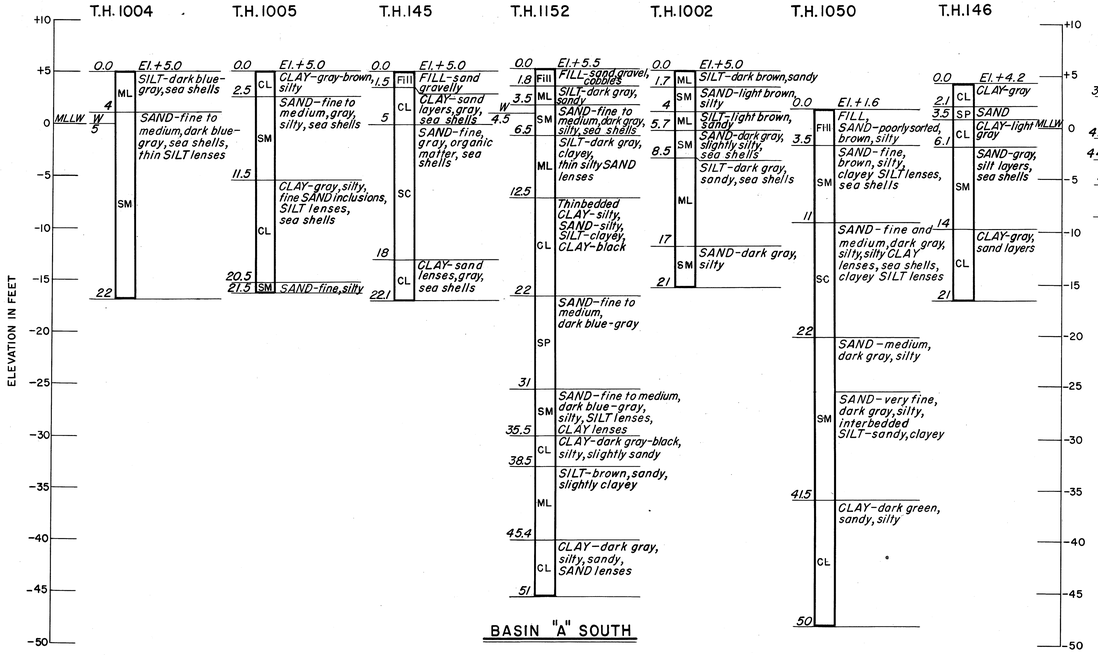
CORPS OF ENGINEERS

U.S. ARMY



BASIN "A" NORTH





BASIN "H" SOUTH

VERT. SCALE 5 0 5 10 15 FEET
HOR. SCALE: NONE

NOTE:
ALL TEST HOLES DRILLED BY MAURSETH AND HOWE, EXCEPT AS NOTED.
FOR GENERAL NOTES AND LEGEND SEE SHEET 12.
DATUM IS MEAN LOWER LOW WATER.

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES, CALIFORNIA

ENGINEER: J.W.R.
DRAWN BY: F. D.
CHECKED BY: M.E.C-C.A.F.
SUBMITTED BY: Claude A. Ostyn, CHIEF, FDN. & MATERIALS, BR.

PLAYA DEL REY INLET AND HARBOR, CALIFORNIA

FOUNDATION EXPLORATION
LOGS OF TEST HOLES

APPROVAL RECOMMENDED: H.W. Thompson, CHIEF, ENGINEERING DIVISION
APPROVED: C. T. Leonard, COLONEL, C. E., DISTRICT ENGINEER

SCALE: AS SHOWN
DATE: JUNE 1959
TO ACCOMPANY
SHEET 14 OF 17 SHEETS
FILE NO. (D. O. SERIES) 2268-A

CORPS OF ENGINEERS

U.S. ARMY

BASIN "B" NORTH

T.H.140

ELEVATION IN FEET

0.0		El. +3.6
2	CL	CLAY
	SM	SAND-gray, silt streaks, sea shells
8		
	SP	SAND-medium to coarse, gray
14		
	SM	SAND-fine, gray
23		

T.H.3

0.0		El. +4.2
3	CL	CLAY-gray
	SM	SAND-fine, silt layers, sea shells
20		

T.H.139

0.0		El. +4.6
2	CL	CLAY-gray
	SM	SAND-silt layers, light gray
		SAND-fine, silt streaks, gray, sea shells
20		

T.H.201

0.0		El. +4.0
1.5	CL	CLAY-silty, mottled gray brown
W 2.5	SM	SAND-fine green brown silty slighty clayey
		SAND-fine to medium gray silty clay lenses sea shells
12.2		CLAY gray fine sand inclusions sea shells
	CL	
18.0		
	SM	SAND-gray-black silty slighty clayey
21.5		

T.H. 202

0.0		El. +5.7
1.5	ML	SILT-sandy dark gray
W 3.5		SAND-fine dark blue-gray sea shells
	SP	SAND-fine dark gray silty interbedded SILT sandy sea shells
17.0		
	ML	SILT-sandy gray-black organic
21.0		

T.H. 204

0.0		El. +5.3
1.0	CL	CLAY-silty gray
2.5	ML	SILT-sandy clayey, mottled brown
W 3.0		SAND-fine light brown
	SP	SAND-fine to medium dark blue-gray silty sea shells interbedded SILT SILT-sandy
8.5	ML	SAND-silty sea shells
17.5		
	SM	SAND-medium dark gray silty
21.0		

T.H. 203

0.0		El. +4.5
W 2.5	ML	SILT-slightly sandy micaceous
3.0		
	CL	CLAY-silty sand inclusions sea shells
18.5		
	ML	SILT-clayey gray-black
21.5	GP	SAND and GRAVEL
22.0		

T.H.138

0.0		El. +4.3
	OL	CLAY-gray, organic matter
3		
	SM	SAND-silty gray & brown
		SAND-gray, silt layers
9		
	CL	CLAY-silty, gray, soft
21		
	SM	SAND-gray, silt layers, sea shells
31		

BASIN "H" NORTH

T.H. 38

ELEVATION IN FEET

0.0		El. +8
	SC	CLAYEY SAND, brown; broken concrete & asphalt fragments to 2'
4.0	CL	CLAY, gray; hole squeezing
W 7.0	ML	SILT-gray with rust stains & small amount fossil remains
10.0		SILTY SAND black to blue-black; occasional fossil shell
	SM	
20.0		

DRILLED BY CORPS OF ENGINEERS, 1956

T.H. 111

0.0		El. +6.0
2	ML	SILT-gray
	OL	CLAY-light gray with black organic matter
12		
	CL	CLAY & SILT, dark gray, soft, sea shells
27		CLAY-sand layers

T.H. 607

0.0		El. +6.0
2.0	Fill	FILL brown silty
	CL	CLAY green-brown slightly silty inclusions of SILT-clayey
8.0	SM	SAND-fine
10.5		SAND-fine dark gray silty sea shells, silty CLAY lenses interbedded
	SC	SAND-fine to medium dark gray
17.5		CLAY-green, silty
21.0	CL	CLAY-gray slightly silty

T.H. 608

0.0		El. +5.9
2.0	ML	SILT-black sandy clayey
W 3.5	CL	CLAY light brown silty; micaceous SILT-clayey
6.5		SAND-blue-gray silty sea shells CLAY lenses
	SC	
16.0		
	ML	SILT dark gray clayey
20.0		

T.H. 13

0.0		El. +5.8
2	ML	SILT-clay
	CL	CLAY-light gray
6		
	SM	SAND-fine, silt layers
13		
	ML	SILT-blue gray, sea shells
20		
	SM	SAND-silty
25		

T.H. 609

0.0		El. +5.5
1.5	ML	SILT gray-brown clayey
W 5.0	SM	SAND-fine light brown silty
8.5		Clay gray silty
	CL	
22.0		

T.H. 654

0.0		El. +6.2
1.0	ML	SILT-sandy
3.0	CL	CLAY gray-green silty (stiff)
W 4.0	SM	SAND, fine light brown silty sea shells
6.5	CL	CLAY gray silty
11.5	SM	SAND, fine to medium dark gray silty
15.0		SILT-dark gray clayey slightly sandy
18.0	ML	SAND-medium dark gray silty pebbles
20.5	SM	SAND-medium to very coarse-GRANULES PEBBLES
	GP	
30.0		

T.H. 110

0.0		El. +5.6
	ML	SILT-gray
3	CL	CLAY-light gray
5		SAND fine, brown
W 7	SP	
10		SAND-clayey, gray
13	SC	SILT-blue gray numerous sea shells
	ML	
20		SAND-silty
23	SM	SAND & GRAVEL
	GP	
32		

T.H. 611

0.0		El. +5.0
1.0	ML	SILT-clayey
W 4.0	CH	CLAY green-brown CLAY light green
9.5		CLAY-brown silty slighty sandy sea shells
	ML	SILT-gray clayey sea shells
13.0	CL	CLAY dark gray silty slighty sandy
19.0	GP	SAND, GRAVEL and large PEBBLES gray, silty
21.0		

T.H. 610

0.0		El. +6.0
2.0	ML	SILT-dark brown sandy
	OL	CLAY-brown silty slighty sandy organic matter
5.5		SAND-fine gray-brown (mottled)
W 6.0	SM	silty sandy SILT lenses, pebbles
12.0		CLAY-dark gray silty slightly sandy
	CL	
16.0		SAND gray silty
	SM	
21.0		SAND and GRAVEL

T.H. 14

0.0		El. +6.0
2	ML	SILT-gray
	CL	CLAY-gray
6		
	SP	SAND-fine, gray & brown
13		
	ML	SILT-blue gray, sea shells
22		

T.H. 109

0.0		El. +6.3
	ML	SILT-gray
3	CL	CLAY-light gray
5	SP	SAND-fine
7		SILT-blue gray, sand layers, sea shells
	ML	
17		SAND & GRAVEL-gray
	GP	
		SAND & GRAVEL-some cobbles
25		

T.H. 612

0.0		El. +6.3
1.5	ML	SILT-gray brown, sandy
	CL	CLAY-brown silty
4.0	SM	SAND-fine gray-brown (mottled) silty sea shells
W 6.5		SILT dark gray sandy
8.5	ML	sea shells
13.5		SAND-fine dark gray silty thin silty CLAY lenses
	SC	
21.0		

BASIN "B" SOUTH

T.H. 1153

ELEVATION IN FEET

0.0		El. +3.6
	Fill	FILL fine sand
3.5		SAND-fine gray silty sea shells thin SILT lenses
	SM	
18.0		
	CL	CLAY gray sea shells SAND inclusions
26.5		
	SM	SAND-fine dark-gray silty sea shells
		SAND-fine dark gray very silty
36.5		SAND-fine brown clay
	CL	very silty slightly clayey
38.5		CLAY-brown sandy slighty silty
	GP	SAND, GRAVEL and PEBBLES
50.0		

T.H. 5

0.0		El. + 5.5
2	SM	SAND and SILT (BORROW)
5.5	ML	SILT and SAND
	SM	SAND and SILT
18.5		
	ML	SILT
26.5		
	SM	SAND and SILT
29.5		
	ML	SILT and SAND
40.5		
	GC	CLAY & GRAVEL
44.5		

DRILLED BY CORPS OF ENGINEERS, 1945.

T.H. 141

0.0		El. +3.6
3	OL	CLAY-gray, organic matter
		SAND-gray sea shells.
	SP	
17.5		
20	CL	CLAY-gray, sand layers

T.H. 10

0.0		El. + 7.0
	ML	SILT and SAND
6.0		
	SM	SAND and SILT
18.0		
	ML	SILT and SAND
28.0		
	SM	SAND and SILT
45.0		

DRILLED BY CORPS OF ENGINEERS, 1945

T.H. 4

0.0		El. +6.8
2	Fill	FILL-clay, dark gray
	OL	CLAY-silt, sea shells, organic matter
4.5		SAND-fine, gray silt streaks, sea shells
	SM	
18		
	CL	CLAY-silty, soft, sand layers
23		

T.H. 1012

0.0		El. +5.4
W 2.0		SAND dark brown silty
	SM	SAND dark gray slightly silty sea shells
13.0		
	ML	SILT dark gray slightly sandy sea shells
17.0		
19.0	SM	SAND dark gray slightly silty sea shells
21.0	ML	SILT dark gray slightly sandy sea shells

T.H. 1011

0.0		El. +6.5
1.75	ML	SILT-gray brown clayey
W 2.5		SAND-fine light brown silty
	SM	SAND-fine gray, silty sea shells
7.8		CLAY-gray, sea shells, sandy SILT lenses, silty SAND lenses
	CL	
17.5		
21.0	ML	SILT gray clayey

T.H. 142

0.0		El. +7.2
	Fill	FILL-sand, rocks, PCC, glass, etc.
4	CL	CLAY-gray, sea shells
8		
	SM	SAND-fine gray, silt streaks, sea shells
17		
	CL	CLAY-silty, soft, many sea shells
28		
	SM	SAND-fine, gray, silt streaks
40		

T.H. 1010

0.0		El. +7.0
	Fill	FILL-sand gravel PCC PM
7.0		
W 10.0	CL	CLAY gray silty
11.0		SAND fine
	SM	dark gray very silty sea shells
17.0		
20.0	CL	CLAY-gray silty sea shells

VERT. SCALE 5 0 5 10 15 FEET

HOR. SCALE: NONE

NOTE:

ALL TEST HOLES DRILLED BY MAURSETH AND HOWE, EXCEPT AS NOTED.

FOR GENERAL NOTES AND LEGEND SEE SHEET 12.

DATUM IS MEAN LOWER LOW WATER.

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES, CALIFORNIA

PLAYA DEL REY INLET AND HARBOR, CALIFORNIA

FOUNDATION EXPLORATION
LOGS OF TEST HOLES

ENGINEER: J.W.R.
DRAWN BY: E.P.
CHECKED BY: M.E.C-C.A.F.
SUBMITTED BY: Claude A. Peterson, CHIEF, FDN. & MATERIALS, BR.

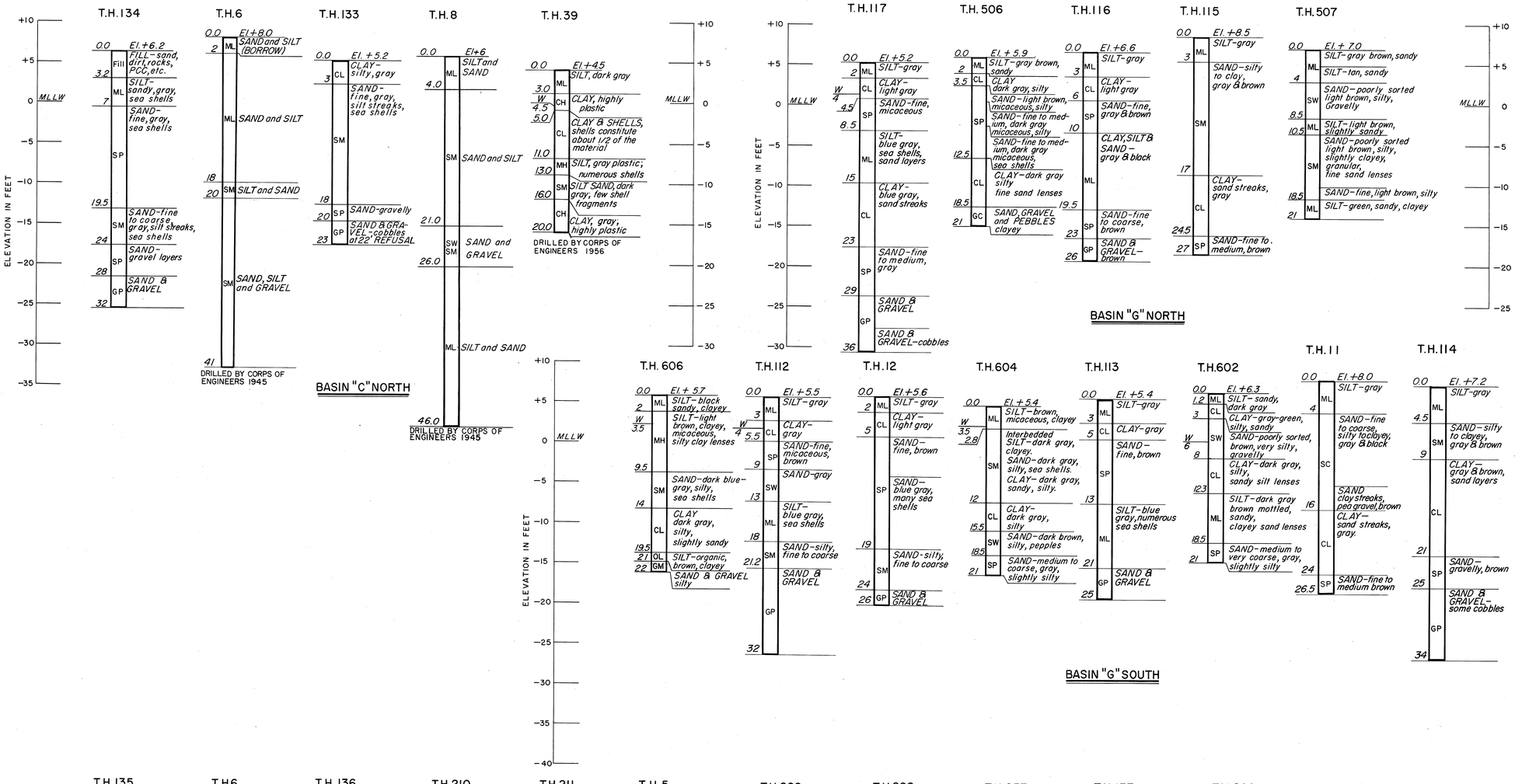
APPROVAL RECOMMENDED: H.W. Thompson, CHIEF, ENGINEERING DIVISION

APPROVED: E. F. Hueston, COLONEL, C.E., DISTRICT ENGINEER

SCALE: AS SHOWN
DATE: JUNE 1959
TO ACCOMPANY
SHEET 15 OF 17 SHEETS
FILE NO. (D. O. SERIES) 2269-A

CORPS OF ENGINEERS

U.S. ARMY



NOTE:
ALL TEST HOLES DRILLED BY MAURSETH AND HOWE, EXCEPT AS NOTED.
FOR GENERAL NOTES AND LEGEND SEE SHEET 12.
DATUM IS MEAN LOWER LOW WATER.

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES, CALIFORNIA

ENGINEER: J.W.R.
DRAWN BY: D.O.-W.F.H.
CHECKED BY: M.E.C-C.A.F.
SUBMITTED BY: Claude A. Dreyer, CHIEF, FDN. & MATERIALS BR.

PLAYA DEL REY INLET AND HARBOR, CALIFORNIA

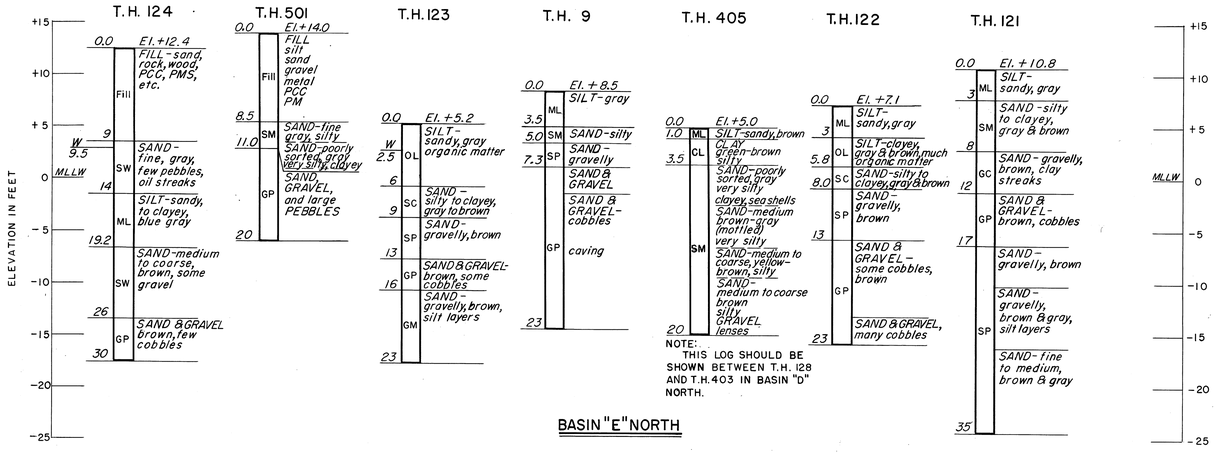
FOUNDATION EXPLORATION
LOGS OF TEST HOLES

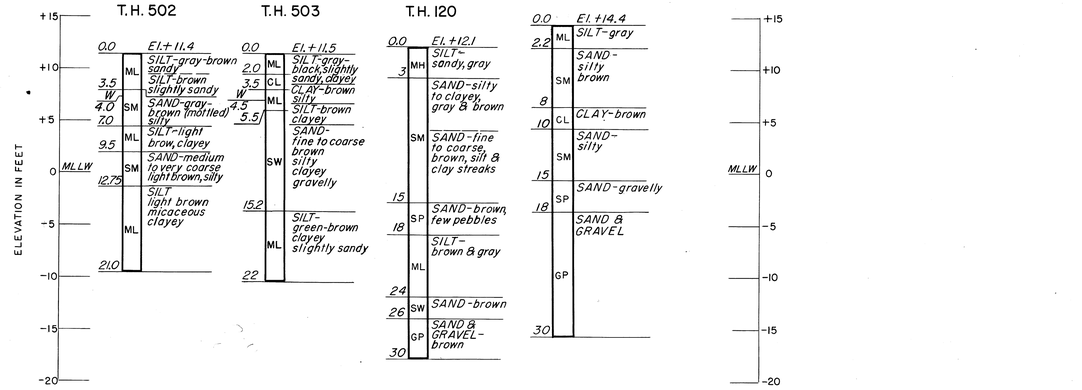
APPROVAL RECOMMENDED: H. W. Thomasson, CHIEF, ENGINEERING DIVISION
APPROVED: E. T. Marks, COLONEL, C. E., DISTRICT ENGINEER

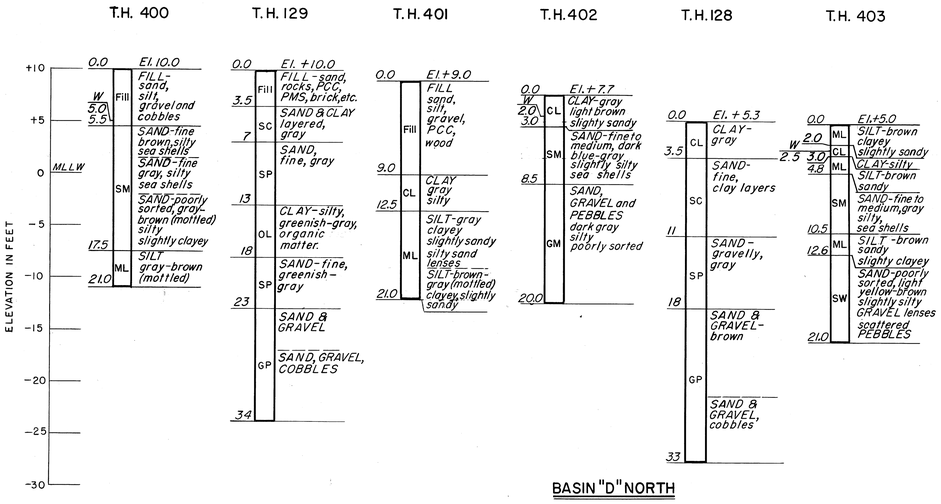
SCALE: AS SHOWN
DATE: JUNE 1959
TO ACCOMPANY
SHEET 16 OF 17 SHEETS
FILE NO. (D. O. SERIES) 2270-A

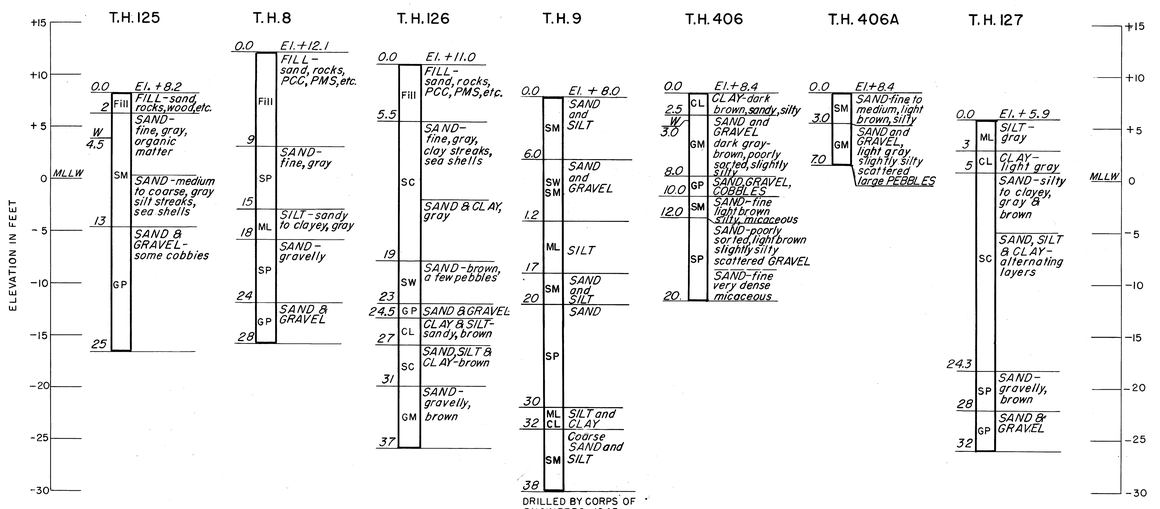
CORPS OF ENGINEERS

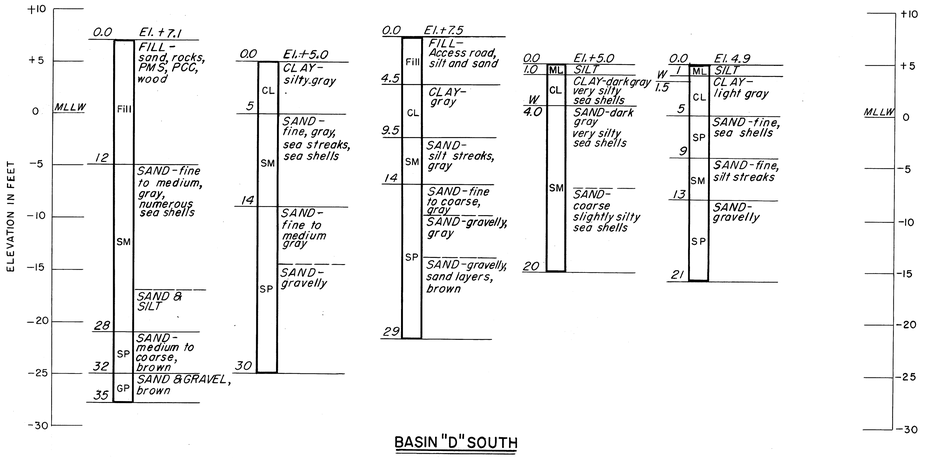
U.S. ARMY

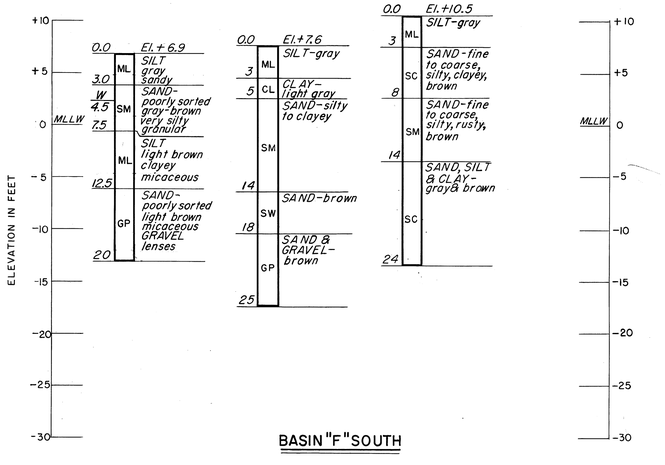












VERT. SCALE 5 0 5 10 15 FEET
HOR. SCALE: NONE

NOTE:
ALL TEST HOLES DRILLED BY MAURSETH AND HOWE, EXCEPT AS NOTED.
FOR GENERAL NOTES AND LEGEND SEE SHEET 12.
DATUM IS MEAN LOWER LOW WATER.

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES, CALIFORNIA

ENGINEER: J.W.R.
DRAWN BY: E.P.
CHECKED BY: M.E.C - C.A.F.
SUBMITTED BY: Claude A. Fritzen, CHIEF, FDN. & MATERIALS, BR.

PLAYA DEL REY INLET AND HARBOR, CALIFORNIA

FOUNDATION EXPLORATION
LOGS OF TEST HOLES

APPROVAL RECOMMENDED: H. D. Thompson, CHIEF, ENGINEERING DIVISION
APPROVED: C. T. Leonard, COLONEL, C. E., DISTRICT ENGINEER
SCALE: AS SHOWN
DATE: JUNE 1959
TO ACCOMPANY
SHEET 17 OF 17 SHEETS
FILE NO. (D. O. SERIES) 2271-A